

Debabrata Das

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

130 papers	7,479 citations	43 h-index	84 g-index
141 ext. papers	8,362 ext. citations	6.7 avg, IF	6.63 L-index

#	Paper	IF	Citations
130	Hydrogen production by biological processes: a survey of literature. <i>International Journal of Hydrogen Energy</i> , 2001 , 26, 13-28	6.7	1499
129	Improvement of fermentative hydrogen production: various approaches. <i>Applied Microbiology and Biotechnology</i> , 2004 , 65, 520-9	5.7	377
128	Development of suitable photobioreactors for CO ₂ sequestration addressing global warming using green algae and cyanobacteria. <i>Bioresource Technology</i> , 2011 , 102, 4945-53	11	371
127	Enhancement of hydrogen production by <i>Enterobacter cloacae</i> IIT-BT 08. <i>Process Biochemistry</i> , 2000 , 35, 589-593	4.8	279
126	Continuous hydrogen production by immobilized <i>Enterobacter cloacae</i> IIT-BT 08 using lignocellulosic materials as solid matrices. <i>Enzyme and Microbial Technology</i> , 2001 , 29, 280-287	3.8	206
125	Advances in biohydrogen production processes: An approach towards commercialization. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 7349-7357	6.7	203
124	Recent trends on the development of photobiological processes and photobioreactors for the improvement of hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 10218-10238	6.7	197
123	The Prospect of Purple Non-Sulfur (PNS) Photosynthetic Bacteria for Hydrogen Production: The Present State of the Art. <i>World Journal of Microbiology and Biotechnology</i> , 2007 , 23, 31-42	4.4	194
122	Microbial hydrogen production with <i>Bacillus coagulans</i> IIT-BT S1 isolated from anaerobic sewage sludge. <i>Bioresource Technology</i> , 2007 , 98, 1183-90	11	152
121	Kinetics of two-stage fermentation process for the production of hydrogen. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 1195-1203	6.7	141
120	Recent developments in biological hydrogen production processes. <i>Chemical Industry and Chemical Engineering Quarterly</i> , 2008 , 14, 57-67	0.7	123
119	Bifunctional Manganese Ferrite/Polyaniline Hybrid as Electrode Material for Enhanced Energy Recovery in Microbial Fuel Cell. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 20657-66	9.5	117
118	Graphene supported MnO_2 nanotubes as a cathode catalyst for improved power generation and wastewater treatment in single-chambered microbial fuel cells. <i>RSC Advances</i> , 2013 , 3, 7902	3.7	111
117	Hydrogen production by <i>Rhodobacter sphaeroides</i> strain O.U.001 using spent media of <i>Enterobacter cloacae</i> strain DM11. <i>Applied Microbiology and Biotechnology</i> , 2005 , 68, 533-41	5.7	106
116	Feasibility studies on the fermentative hydrogen production by recombinant <i>Escherichia coli</i> BL-21. <i>Process Biochemistry</i> , 2006 , 41, 682-688	4.8	104
115	Modeling and optimization of fermentative hydrogen production. <i>Bioresource Technology</i> , 2011 , 102, 8569-81	11	103
114	Carbon dioxide sequestration from industrial flue gas by <i>Chlorella sorokiniana</i> . <i>Bioresource Technology</i> , 2014 , 152, 225-33	11	102

113	Performance of electron acceptors in catholyte of a two-chambered microbial fuel cell using anion exchange membrane. <i>Bioresource Technology</i> , 2011 , 102, 2736-44	11	90
112	Photofermentative molecular biohydrogen production by purple-non-sulfur (PNS) bacteria in various modes: The present progress and future perspective. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 6853-6871	6.7	88
111	Growth characteristics of <i>Chlorella sorokiniana</i> in airlift and bubble column photobioreactors. <i>Bioresource Technology</i> , 2012 , 116, 307-13	11	84
110	Graphene Oxide-Impregnated PVA/STA Composite Polymer Electrolyte Membrane Separator for Power Generation in a Single-Chambered Microbial Fuel Cell. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 11597-11606	3.9	83
109	Performance of an anion exchange membrane in association with cathodic parameters in a dual chamber microbial fuel cell. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 9383-9392	6.7	82
108	Effect of some environmental parameters on fermentative hydrogen production by <i>Enterobacter cloacae</i> DM11. <i>Canadian Journal of Microbiology</i> , 2006 , 52, 525-32	3.2	77
107	Photofermentative hydrogen production using purple non-sulfur bacteria <i>Rhodobacter sphaeroides</i> O.U.001 in an annular photobioreactor: A case study. <i>Biomass and Bioenergy</i> , 2009 , 33, 911-919	5.3	74
106	Improvement of biohydrogen production under decreased partial pressure of H ₂ by <i>Enterobacter cloacae</i> . <i>Biotechnology Letters</i> , 2006 , 28, 831-5	3	73
105	Improvement of biohydrogen production by <i>Enterobacter cloacae</i> IIT-BT 08 under regulated pH. <i>Journal of Biotechnology</i> , 2011 , 152, 9-15	3.7	71
104	Recent developments on biofuels production from microalgae and macroalgae. <i>Renewable and Sustainable Energy Reviews</i> , 2016 , 65, 235-249	16.2	69
103	Thermophilic biohydrogen production using pre-treated algal biomass as substrate. <i>Biomass and Bioenergy</i> , 2014 , 61, 157-166	5.3	67
102	Cell growth kinetics of <i>Chlorella sorokiniana</i> and nutritional values of its biomass. <i>Bioresource Technology</i> , 2014 , 167, 358-66	11	67
101	Manganese cobaltite/polypyrrole nanocomposite-based air-cathode for sustainable power generation in the single-chambered microbial fuel cells. <i>Biosensors and Bioelectronics</i> , 2014 , 54, 534-40	11.8	67
100	Microbial carbon capture cell using cyanobacteria for simultaneous power generation, carbon dioxide sequestration and wastewater treatment. <i>Bioresource Technology</i> , 2012 , 107, 97-102	11	66
99	Improvement of power generation using <i>Shewanella putrefaciens</i> mediated bioanode in a single chambered microbial fuel cell: effect of different anodic operating conditions. <i>Bioresource Technology</i> , 2014 , 166, 451-7	11	63
98	Effect of light intensity and initial pH during hydrogen production by an integrated dark and photofermentation process. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 7497-7501	6.7	60
97	Redirection of biochemical pathways for the enhancement of H ₂ production by <i>Enterobacter cloacae</i> . <i>Biotechnology Letters</i> , 2001 , 23, 537-541	3	59
96	Physicochemical parameters optimization, and purification of phycobiliproteins from the isolated <i>Nostoc</i> sp. <i>Bioresource Technology</i> , 2014 , 166, 541-7	11	58

95	Hydrogen production using <i>Rhodobacter sphaeroides</i> (O.U. 001) in a flat panel rocking photobioreactor. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 3434-3441	6.7	57
94	Improvement of gaseous energy recovery from sugarcane bagasse by dark fermentation followed by biomethanation process. <i>Bioresource Technology</i> , 2015 , 194, 354-63	11	56
93	Improvement of power generation of microbial fuel cell by integrating tungsten oxide electrocatalyst with pure or mixed culture biocatalysts. <i>Electrochimica Acta</i> , 2016 , 199, 154-163	6.7	56
92	Fe ₂ O ₃ nanocatalyst aided transesterification for biodiesel production from lipid-intact wet microalgal biomass: A biorefinery approach. <i>Energy Conversion and Management</i> , 2019 , 195, 844-853	10.6	55
91	Biohythane production from organic wastes: present state of art. <i>Environmental Science and Pollution Research</i> , 2016 , 23, 9391-410	5.1	53
90	Application of PVAPDDA polymer electrolyte composite anion exchange membrane separator for improved bioelectricity production in a single chambered microbial fuel cell. <i>Chemical Engineering Journal</i> , 2014 , 257, 138-147	14.7	51
89	Improvement of energy recovery from cellobiose by thermophilic dark fermentative hydrogen production followed by microbial fuel cell. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 8311-8321	6.7	48
88	Improvement of hydrogen production with thermophilic mixed culture from rice spent wash of distillery industry. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 15867-15874	6.7	44
87	Biohydrogen production from <i>Enterobacter cloacae</i> IIT-BT 08 using distillery effluent. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 7496-7507	6.7	43
86	Continuous mode of carbon dioxide sequestration by <i>C. sorokiniana</i> and subsequent use of its biomass for hydrogen production by <i>E. cloacae</i> IIT-BT 08. <i>Bioresource Technology</i> , 2013 , 145, 116-22	11	42
85	Biohydrogen production from algal biomass (<i>Anabaena</i> sp. PCC 7120) cultivated in airlift photobioreactor. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 7553-7560	6.7	40
84	Improvement in biohythane production using organic solid waste and distillery effluent. <i>Waste Management</i> , 2017 , 66, 70-78	8.6	38
83	Improvement of hydrogen production by newly isolated <i>Thermoanaerobacterium thermosaccharolyticum</i> IIT BT-ST1. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 7541-7552	6.7	38
82	Biologically pretreated sugarcane top as a potential raw material for the enhancement of gaseous energy recovery by two stage biohythane process. <i>Bioresource Technology</i> , 2016 , 218, 1090-7	11	36
81	Improved energy recovery from dark fermented cane molasses using microbial fuel cells. <i>Frontiers of Chemical Science and Engineering</i> , 2014 , 8, 43-54	4.5	35
80	Continuous thermophilic biohydrogen production in packed bed reactor. <i>Applied Energy</i> , 2014 , 136, 51-58	8.7	34
79	Optimization of molecular hydrogen production by <i>Rhodobacter sphaeroides</i> O.U.001 in the annular photobioreactor using response surface methodology. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 11889-11901	6.7	33
78	Use of image analysis tool for the development of light distribution pattern inside the photobioreactor for the algal cultivation. <i>Bioresource Technology</i> , 2013 , 143, 88-95	11	32

77	Instant power generation from an air-breathing paper and pencil based bacterial bio-fuel cell. <i>Lab on A Chip</i> , 2015 , 15, 2580-3	7.2	32
76	Microbial hydrogen production from sewage sludge bioaugmented with a constructed microbial consortium. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 10653-10659	6.7	32
75	Biological hydrogen production via dark fermentation: A holistic approach from lab-scale to pilot-scale. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 5202-5215	6.7	32
74	Process intensification of biodiesel production from <i>Chlorella</i> sp. MJ 11/11 by single step transesterification. <i>Algal Research</i> , 2017 , 27, 12-20	5	30
73	Biohythane production from sugarcane bagasse and water hyacinth: A way towards promising green energy production. <i>Journal of Cleaner Production</i> , 2019 , 207, 689-701	10.3	30
72	Biohydrogen production by dark fermentation. <i>Wiley Interdisciplinary Reviews: Energy and Environment</i> , 2013 , 2, 401-421	4.7	29
71	Improvement of biohydrogen production using acidogenic culture. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 4083-4094	6.7	28
70	Maneuvering the genetic and metabolic pathway for improving biofuel production in algae: Present status and future prospective. <i>Renewable and Sustainable Energy Reviews</i> , 2020 , 133, 110155	16.2	26
69	Production of carbohydrate enrich microalgal biomass as a bioenergy feedstock. <i>Energy</i> , 2019 , 188, 116039	10.3	25
68	Improvement of biomass production by <i>Chlorella</i> sp. MJ 11/11 for use as a feedstock for biodiesel. <i>Applied Biochemistry and Biotechnology</i> , 2015 , 175, 3322-35	3.2	25
67	Optimization of dark fermentative hydrogen production from organic wastes using acidogenic mixed consortia. <i>Energy Conversion and Management</i> , 2020 , 219, 113047	10.6	25
66	Improvement of lipid content of <i>Chlorella minutissima</i> MCC 5 for biodiesel production. <i>Journal of Bioscience and Bioengineering</i> , 2016 , 122, 294-300	3.3	25
65	Biohydrogen Production from Organic Wastes by Dark Fermentation 2013 , 103-144		25
64	Improvement of energy recovery from water hyacinth by using integrated system. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 1303-1318	6.7	25
63	Enhanced energy recovery by manganese oxide/reduced graphene oxide nanocomposite as an air-cathode electrode in the single-chambered microbial fuel cell. <i>Journal of Electroanalytical Chemistry</i> , 2018 , 815, 1-7	4.1	24
62	Comparative evaluation of the hydrogen production by mixed consortium, synthetic co-culture and pure culture using distillery effluent. <i>Bioresource Technology</i> , 2015 , 198, 593-602	11	23
61	Role of formate hydrogen lyase complex in hydrogen production in facultative anaerobes. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 8806-8815	6.7	22
60	Biomass production and identification of suitable harvesting technique for <i>Chlorella</i> sp. MJ 11/11 and <i>Synechocystis</i> PCC 6803. <i>3 Biotech</i> , 2016 , 6, 41	2.8	22

59	Maximizing power generation from dark fermentation effluents in microbial fuel cell by selective enrichment of exoelectrogens and optimization of anodic operational parameters. <i>Biotechnology Letters</i> , 2017 , 39, 721-730	3	21
58	Reduction of start-up time through bioaugmentation process in microbial fuel cells using an isolate from dark fermentative spent media fed anode. <i>Water Science and Technology</i> , 2015 , 72, 106-15	2.2	20
57	A flexible and disposable battery powered by bacteria using eyeliner coated paper electrodes. <i>Biosensors and Bioelectronics</i> , 2017 , 94, 464-470	11.8	19
56	Genomic and proteomic approaches for dark fermentative biohydrogen production. <i>Renewable and Sustainable Energy Reviews</i> , 2016 , 56, 1308-1321	16.2	19
55	Enhancement in lipid content of <i>Chlorella</i> sp. MJ 11/11 from the spent medium of thermophilic biohydrogen production process. <i>Bioresource Technology</i> , 2017 , 223, 219-226	11	19
54	Improvement of carbon dioxide biofixation in a photobioreactor using <i>Anabaena</i> sp. PCC 7120. <i>Process Biochemistry</i> , 2013 , 48, 1126-1132	4.8	18
53	CFD modeling of hydrodynamics and optimization of photofermentative hydrogen production by <i>Rhodospseudomonas palustris</i> DSM 123 in annular photobioreactor. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 7301-7317	6.7	18
52	Biohydrogen Production Using Microbial Electrolysis Cell: Recent Advances and Future Prospects 2019 , 843-869		18
51	Internet of Things temperature sensor powered by bacterial fuel cells on paper. <i>Journal of Power Sources</i> , 2019 , 438, 226947	8.9	17
50	Homologous overexpression of [FeFe] hydrogenase in <i>Enterobacter cloacae</i> IIT-BT 08 to enhance hydrogen gas production from cheese whey. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 15573-15582	6.7	16
49	Biohydrogen from complex carbohydrate wastes as feedstocks. Cellulose degraders from a unique series enrichment. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 7428-7434	6.7	16
48	Optimization of <i>Chlamydomonas reinhardtii</i> cultivation with simultaneous CO sequestration and biofuels production in a biorefinery framework. <i>Science of the Total Environment</i> , 2021 , 762, 143080	10.2	16
47	Improvement of the degradation of sulfate rich wastewater using sweetmeat waste (SMW) as nutrient supplement. <i>Journal of Hazardous Materials</i> , 2015 , 300, 796-807	12.8	15
46	Amelioration of biohydrogen production by a two-stage fermentation process. <i>Industrial Biotechnology</i> , 2006 , 2, 44-47	1.3	15
45	Complete genome sequence of <i>Enterobacter</i> sp. IIT-BT 08: A potential microbial strain for high rate hydrogen production. <i>Standards in Genomic Sciences</i> , 2013 , 9, 359-69		13
44	Potential of Hydrogen Production From Biomass 2019 , 123-164		13
43	Dark-Fermentative Biohydrogen Production 2019 , 79-122		12
42	Metabolically redirected biohydrogen pathway integrated with biomethanation for improved gaseous energy recovery. <i>Fuel</i> , 2015 , 158, 471-478	7.1	12

41	Biofuels from Microalgae: Biohydrogen. <i>Green Energy and Technology</i> , 2018 , 201-228	0.6	12
40	Purification and characterization of [Fe]-hydrogenase from high yielding hydrogen-producing strain, <i>Enterobacter cloacae</i> IIT-BT08 (MTCC 5373). <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 7530-7537	6.7	12
39	Maximizing biohydrogen production from water hyacinth by coupling dark fermentation and electrohydrogenesis. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 5227-5238	6.7	12
38	Effect of thermal pretreated organic wastes on the dark fermentative hydrogen production using mixed microbial consortia. <i>Fuel</i> , 2021 , 284, 119062	7.1	12
37	Process Optimization for Enhanced Biodiesel Production by <i>Neochloris oleoabundans</i> UTEX 1185 with Concomitant CO ₂ Sequestration. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 15760-15771	3.9	11
36	Simulation and modeling of continuous H ₂ production process by <i>Enterobacter cloacae</i> IIT-BT 08 using different bioreactor configuration. <i>Enzyme and Microbial Technology</i> , 2002 , 31, 867-875	3.8	11
35	Improvement of bioelectricity generation and microalgal productivity with concomitant wastewater treatment in flat-plate microbial carbon capture cell. <i>Fuel</i> , 2020 , 263, 116696	7.1	11
34	Improvement in energy recovery by dark fermentative biohydrogen followed by biobutanol production process using obligate anaerobes. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 4880-4892	6.7	10
33	Improved bioelectricity generation of air-cathode microbial fuel cell using sodium hexahydroxostannate as cathode catalyst. <i>Journal of Power Sources</i> , 2020 , 450, 227679	8.9	10
32	Optimization of the medium composition for the improvement of hydrogen and butanol production using <i>Clostridium saccharoperbutylacetonicum</i> DSM 14923. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 26905-26919	6.7	9
31	Improvement in electrically induced biomass harvesting of <i>Chlorella</i> sp. MJ 11/11 for bulk biomass production. <i>Journal of Applied Phycology</i> , 2018 , 30, 979-993	3.2	8
30	A Road Map on Biohydrogen Production from Organic Wastes. <i>INAE Letters</i> , 2017 , 2, 153-160	0.7	8
29	Flocculation characteristics of anaerobic sludge driven-extracellular polymeric substance (EPS) extracted by different methods on microalgae harvesting for lipid utilization. <i>Biochemical Engineering Journal</i> , 2021 , 167, 107898	4.2	8
28	Microalgal bio-flocculation: present scenario and prospects for commercialization. <i>Environmental Science and Pollution Research</i> , 2021 , 28, 26294-26312	5.1	8
27	Principles of Microbial Fuel Cell for the Power Generation 2018 , 21-41		7
26	<i>Aspergillus</i> sp. assisted bioflocculation of <i>Chlorella</i> MJ 11/11 for the production of biofuel from the algal-fungal co-pellet. <i>Separation and Purification Technology</i> , 2021 , 272, 118320	8.3	7
25	Improvement of biohydrogen production with novel augmentation strategy using different organic residues. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 14015-14025	6.7	6
24	Impact Assessment of Arbuscular Mycorrhiza <i>Azospirillum</i> and Chemical Fertilizer Application on Soil Health and Ecology. <i>Communications in Soil Science and Plant Analysis</i> , 2013 , 44, 1116-1126	1.5	6

23	Concomitant hydrogen and butanol production via co-digestion of organic wastewater and nitrogenous residues. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 24477-24490	6.7	6
22	Influence of photobioreactor configuration on microalgal biomass production. <i>Bioprocess and Biosystems Engineering</i> , 2020 , 43, 1487-1497	3.7	5
21	Biohydrogen 2013 , 345-381		5
20	Characteristics of cured and wild strains of <i>Enterobacter cloacae</i> IIT-BT 08 for the improvement of biohydrogen production. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 11666-11676	6.7	5
19	CO ₂ Sequestration and Hydrogen Production Using Cyanobacteria and Green Algae 2013 , 173-215		4
18	Optimization for simultaneous enhancement of biobutanol and biohydrogen production. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 3726-3741	6.7	4
17	Sustainable approach for the treatment of poultry manure and starchy wastewater by integrating dark fermentation and microalgal cultivation. <i>Journal of Material Cycles and Waste Management</i> , 2021 , 23, 790-803	3.4	4
16	Production Process via Fermentation 2016 , 417-438		3
15	Carbon Dioxide Sequestration by Biological Processes. <i>Green Chemistry and Sustainable Technology</i> , 2014 , 303-334	1.1	3
14	Dark fermentative biohydrogen production using pretreated <i>Scenedesmus obliquus</i> biomass under an integrated paradigm of biorefinery. <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 102-102	6.7	3
13	Utilization of <i>Arachis hypogaea</i> hull, an agricultural waste for the production of activated carbons to remove phenol from aqueous solutions. <i>Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes</i> , 2008 , 43, 452-463	2.2	2
12	Gaseous Fuels Production from Algal Biomass 2015 , 297-319		2
11	Bioremediation and Power Generation from Organic Wastes Using Microbial Fuel Cell 2018 , 285-306		2
10	Role of Microalgae in Microbial Fuel Cell 2015 , 375-399		1
9	Biohydrogen from microalgae 2020 , 391-418		1
8	¹³ C metabolic flux analysis (MFA) to find out the metabolic fluxes of biomass production and lipid accumulation in <i>Neochloris oleoabundans</i> UTEX 1185. <i>Journal of Applied Phycology</i> , 2021 , 33, 1399-1407 ^{3,2}		1
7	Photofermentative biohydrogen generation from organic acids by <i>Rhodobacter sphaeroides</i> O.U.001: Computational fluid dynamics modeling of hydrodynamics and temperature. <i>Biotechnology and Applied Biochemistry</i> , 2021 ,	2.8	1
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- 5 Production of Bioethanol from Microalgal Feedstock: A Circular Biorefinery Approach. *Energy, Environment, and Sustainability*, **2022**, 33-65 o.8 o
- 4 Current Status and Prospects of Biohydrogen Production Process. *Clean Energy Production Technologies*, **2022**, 99-133 o.8 o
- 3 Nanobiotechnology Augmenting Biological Gaseous Energy Recovery **2017**, 249-270
- 2 Biotechnological Platform for Biohydrogen Production: Present Status and Future Challenges **2017**, 357-390
- 1 Aerobic Effluent Treatment Processes, Biohythane Processes and Biofertilizers **2021**, 433-466