

Eric Trably

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120
papers

6,449
citations

41
h-index

78
g-index

123
ext. papers

7,667
ext. citations

8
avg. IF

6.17
L-index

#	Paper	IF	Citations
120	Hydrogen production from agricultural waste by dark fermentation: A review. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 10660-10673	6.7	562
119	A review on dark fermentative biohydrogen production from organic biomass: Process parameters and use of by-products. <i>Applied Energy</i> , 2015 , 144, 73-95	10.7	554
118	Acetate oxidation is the dominant methanogenic pathway from acetate in the absence of Methanosaetaceae. <i>Applied and Environmental Microbiology</i> , 2006 , 72, 5138-41	4.8	299
117	Do furanic and phenolic compounds of lignocellulosic and algae biomass hydrolyzate inhibit anaerobic mixed cultures? A comprehensive review. <i>Biotechnology Advances</i> , 2014 , 32, 934-51	17.8	292
116	Lignocellulosic Materials Into Biohydrogen and Biomethane: Impact of Structural Features and Pretreatment. <i>Critical Reviews in Environmental Science and Technology</i> , 2013 , 43, 260-322	11.1	265
115	Total solids content drives high solid anaerobic digestion via mass transfer limitation. <i>Bioresource Technology</i> , 2012 , 111, 55-61	11	264
114	Electro-Fermentation: How To Drive Fermentation Using Electrochemical Systems. <i>Trends in Biotechnology</i> , 2016 , 34, 856-865	15.1	182
113	Predictive models of biohydrogen and biomethane production based on the compositional and structural features of lignocellulosic materials. <i>Environmental Science & Technology</i> , 2012 , 46, 12217-25	19.3	155
112	Pretreatment of food waste for methane and hydrogen recovery: A review. <i>Bioresource Technology</i> , 2018 , 249, 1025-1039	11	153
111	Inhibition of fermentative hydrogen production by lignocellulose-derived compounds in mixed cultures. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 3150-3159	6.7	143
110	Microbial ecology of fermentative hydrogen producing bioprocesses: useful insights for driving the ecosystem function. <i>FEMS Microbiology Reviews</i> , 2017 , 41, 158-181	15.1	127
109	Addition of granular activated carbon and trace elements to favor volatile fatty acid consumption during anaerobic digestion of food waste. <i>Bioresource Technology</i> , 2018 , 260, 157-168	11	109
108	Integrating microalgae production with anaerobic digestion: a biorefinery approach. <i>Biofuels, Bioproducts and Biorefining</i> , 2014 , 8, 516-529	5.3	108
107	Total solids content: a key parameter of metabolic pathways in dry anaerobic digestion. <i>Biotechnology for Biofuels</i> , 2013 , 6, 164	7.8	99
106	Nutritional stress induces exchange of cell material and energetic coupling between bacterial species. <i>Nature Communications</i> , 2015 , 6, 6283	17.4	95
105	Alkaline pretreatment to enhance one-stage CH ₄ and two-stage H ₂ /CH ₄ production from sunflower stalks: Mass, energy and economical balances. <i>Chemical Engineering Journal</i> , 2015 , 260, 377-385	14.7	92
104	Biohydrogen production from food waste: Current status, limitations, and future perspectives. <i>Bioresource Technology</i> , 2018 , 248, 79-87	11	87

103	Coupling dark fermentation and microbial electrolysis to enhance bio-hydrogen production from agro-industrial wastewaters and by-products in a bio-refinery framework. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 1609-1621	6.7	86
102	Biodegradation of polycyclic aromatic hydrocarbons: Using microbial bioelectrochemical systems to overcome an impasse. <i>Environmental Pollution</i> , 2017 , 231, 509-523	9.3	84
101	Biomass hydrolysis inhibition at high hydrogen partial pressure in solid-state anaerobic digestion. <i>Bioresource Technology</i> , 2015 , 190, 106-113	11	83
100	The environmental biorefinery: state-of-the-art on the production of hydrogen and value-added biomolecules in mixed-culture fermentation. <i>Green Chemistry</i> , 2018 , 20, 3159-3179	10	83
99	Biohydrogen production by dark fermentation: scaling-up and technologies integration for a sustainable system. <i>Reviews in Environmental Science and Biotechnology</i> , 2015 , 14, 761-785	13.9	77
98	Long-term continuous production of H ₂ in a microbial electrolysis cell (MEC) treating saline wastewater. <i>Water Research</i> , 2015 , 81, 149-56	12.5	77
97	Sub-dominant bacteria as keystone species in microbial communities producing bio-hydrogen. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 4975-4985	6.7	70
96	Effect of enzyme addition on fermentative hydrogen production from wheat straw. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 10639-10647	6.7	70
95	Dry anaerobic digestion of food waste and cardboard at different substrate loads, solid contents and co-digestion proportions. <i>Bioresource Technology</i> , 2017 , 233, 166-175	11	69
94	Effects of operational parameters on dark fermentative hydrogen production from biodegradable complex waste biomass. <i>Waste Management</i> , 2016 , 50, 55-64	8.6	65
93	Dark-fermentative biohydrogen pathways and microbial networks in continuous stirred tank reactors: Novel insights on their control. <i>Applied Energy</i> , 2017 , 198, 77-87	10.7	64
92	Specific inhibition of biohydrogen-producing <i>Clostridium</i> sp. after dilute-acid pretreatment of sunflower stalks. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 12273-12282	6.7	63
91	Potentialities of dark fermentation effluents as substrates for microalgae growth: A review. <i>Process Biochemistry</i> , 2016 , 51, 1843-1854	4.8	60
90	Bidirectional microbial electron transfer: Switching an acetate oxidizing biofilm to nitrate reducing conditions. <i>Biosensors and Bioelectronics</i> , 2016 , 75, 352-8	11.8	57
89	Predictive and explicative models of fermentative hydrogen production from solid organic waste: Role of butyrate and lactate pathways. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 7476-7485	6.7	56
88	Assessment of hydrothermal pretreatment of various lignocellulosic biomass with CO catalyst for enhanced methane and hydrogen production. <i>Water Research</i> , 2017 , 120, 32-42	12.5	55
87	Biohydrogen production from food waste by coupling semi-continuous dark-photofermentation and residue post-treatment to anaerobic digestion: A synergy for energy recovery. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 16045-16055	6.7	54
86	Use of fermentative metabolites for heterotrophic microalgae growth: Yields and kinetics. <i>Bioresource Technology</i> , 2015 , 175, 342-9	11	53

85	Consistent 1,3-propanediol production from glycerol in mixed culture fermentation over a wide range of pH. <i>Biotechnology for Biofuels</i> , 2016 , 9, 32	7.8	51
84	Successful treatment of low PAH-contaminated sewage sludge in aerobic bioreactors. <i>Environmental Science and Pollution Research</i> , 2006 , 13, 170-6	5.1	47
83	Life cycle assessment of hydrogen production from biogas reforming. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 6064-6075	6.7	46
82	How to use molecular biology tools for the study of the anaerobic digestion process?. <i>Reviews in Environmental Science and Biotechnology</i> , 2015 , 14, 555-593	13.9	45
81	High current density via direct electron transfer by the halophilic anode respiring bacterium <i>Geothalobacter subterraneus</i> . <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 19699-707	3.6	45
80	Bioelectrochemical treatment of table olive brine processing wastewater for biogas production and phenolic compounds removal. <i>Water Research</i> , 2016 , 100, 316-325	12.5	41
79	Effect of total solids content on biohydrogen production and lactic acid accumulation during dark fermentation of organic waste biomass. <i>Bioresource Technology</i> , 2018 , 248, 180-186	11	38
78	Raw dark fermentation effluent to support heterotrophic microalgae growth: microalgae successfully outcompete bacteria for acetate. <i>Algal Research</i> , 2015 , 12, 119-125	5	37
77	A comprehensive review on two-stage integrative schemes for the valorization of dark fermentative effluents. <i>Critical Reviews in Biotechnology</i> , 2018 , 38, 868-882	9.4	37
76	Biohydrogen production at pH below 3.0: Is it possible?. <i>Water Research</i> , 2018 , 128, 350-361	12.5	37
75	Microbial community signature of high-solid content methanogenic ecosystems. <i>Bioresource Technology</i> , 2013 , 133, 256-62	11	36
74	Changes in hydrogenase genetic diversity and proteomic patterns in mixed-culture dark fermentation of mono-, di- and tri-saccharides. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 11654-11665	6.7	36
73	Continuous biohydrogen production from a food industry waste: Influence of operational parameters and microbial community analysis. <i>Journal of Cleaner Production</i> , 2018 , 174, 1054-1063	10.3	36
72	Impact of anaerobic and aerobic processes on polychlorobiphenyl removal in contaminated sewage sludge. <i>Biodegradation</i> , 2006 , 17, 9-17	4.1	35
71	Statistical tools for the optimization of a highly reproducible method for the analysis of polycyclic aromatic hydrocarbons in sludge samples. <i>International Journal of Environmental Analytical Chemistry</i> , 2004 , 84, 995-1008	1.8	35
70	Two-stage alkaline-enzymatic pretreatments to enhance biohydrogen production from sunflower stalks. <i>Environmental Science & Technology</i> , 2013 , 47, 12591-9	10.3	34
69	Kinetic study of dry anaerobic co-digestion of food waste and cardboard for methane production. <i>Waste Management</i> , 2017 , 69, 470-479	8.6	34
68	The type of carbohydrates specifically selects microbial community structures and fermentation patterns. <i>Bioresource Technology</i> , 2016 , 221, 541-549	11	33

67	Functional versus phylogenetic fingerprint analyses for monitoring hydrogen-producing bacterial populations in dark fermentation cultures. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 3870-3879	6.7	31
66	Specific and efficient electrochemical selection of <i>Geoalkalibacter subterraneus</i> and <i>Desulfuromonas acetoxidans</i> in high current-producing biofilms. <i>Bioelectrochemistry</i> , 2015 , 106, 221-5	5.6	29
65	High-solids anaerobic digestion model for homogenized reactors. <i>Water Research</i> , 2018 , 142, 501-511	12.5	29
64	Total solid content drives hydrogen production through microbial selection during thermophilic fermentation. <i>Bioresource Technology</i> , 2014 , 166, 610-5	11	29
63	Co-ensiling as a new technique for long-term storage of agro-industrial waste with low sugar content prior to anaerobic digestion. <i>Waste Management</i> , 2018 , 71, 147-155	8.6	29
62	Impact of hydraulic retention time (HRT) and pH on dark fermentative hydrogen production from glycerol. <i>Energy</i> , 2017 , 141, 358-367	7.9	28
61	Growth of <i>Chlorella sorokiniana</i> on a mixture of volatile fatty acids: The effects of light and temperature. <i>Bioresource Technology</i> , 2015 , 198, 852-60	11	28
60	Electro-fermentation triggering population selection in mixed-culture glycerol fermentation. <i>Microbial Biotechnology</i> , 2018 , 11, 74-83	6.3	28
59	Anaerobic Removal of Trace Organic Contaminants in Sewage Sludge: 15 Years of Experience. <i>Pedosphere</i> , 2012 , 22, 508-517	5	28
58	Cooperative growth of <i>Geobacter sulfurreducens</i> and <i>Clostridium pasteurianum</i> with subsequent metabolic shift in glycerol fermentation. <i>Scientific Reports</i> , 2017 , 7, 44334	4.9	27
57	Fermentative hydrogen production under moderate halophilic conditions. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 7508-7517	6.7	27
56	Development and application of a functional CE-SSCP fingerprinting method based on [FeBe]-hydrogenase genes for monitoring hydrogen-producing <i>Clostridium</i> in mixed cultures. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 13158-13167	6.7	27
55	<i>Methanosarcina</i> plays a main role during methanogenesis of high-solids food waste and cardboard. <i>Waste Management</i> , 2018 , 76, 423-430	8.6	26
54	High hydrogen production rate in a submerged membrane anaerobic bioreactor. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 24656-24666	6.7	24
53	A review on key design and operational parameters to optimize and develop hydrothermal liquefaction of biomass for biorefinery applications. <i>Green Chemistry</i> , 2021 , 23, 1404-1446	10	24
52	Behavior of two-chamber microbial electrochemical systems started-up with different ion-exchange membrane separators. <i>Bioresource Technology</i> , 2019 , 278, 279-286	11	23
51	Innovative CO ₂ pretreatment for enhancing biohydrogen production from the organic fraction of municipal solid waste (OFMSW). <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 14062-14071	6.7	23
50	Hydrogen metabolic patterns driven by <i>Clostridium</i> - <i>Streptococcus</i> community shifts in a continuous stirred tank reactor. <i>Applied Microbiology and Biotechnology</i> , 2018 , 102, 2465-2475	5.7	22

49	Effect of post-digestion temperature on serial CSTR biogas reactor performance. <i>Water Research</i> , 2009 , 43, 669-76	12.5	22
48	Adaptation of acidogenic sludge to increasing glycerol concentrations for biohydrogen production. <i>Applied Microbiology and Biotechnology</i> , 2015 , 99, 8295-308	5.7	18
47	Biomethanation processes: new insights on the effect of a high H partial pressure on microbial communities. <i>Biotechnology for Biofuels</i> , 2020 , 13, 141	7.8	18
46	Microbial characterization of anode-respiring bacteria within biofilms developed from cultures previously enriched in dissimilatory metal-reducing bacteria. <i>Bioresource Technology</i> , 2015 , 195, 283-7	11	17
45	Enhancement of mass transfer conditions to increase the productivity and efficiency of dark fermentation in continuous reactors. <i>Fuel</i> , 2019 , 254, 115648	7.1	16
44	High-solids anaerobic digestion requires a trade-off between total solids, inoculum-to-substrate ratio and ammonia inhibition. <i>International Journal of Environmental Science and Technology</i> , 2019 , 16, 7011-7024	3.3	16
43	Cardboard proportions and total solids contents as driving factors in dry co-fermentation of food waste. <i>Bioresource Technology</i> , 2018 , 248, 229-237	11	16
42	Reversibility of hydrolysis inhibition at high hydrogen partial pressure in dry anaerobic digestion processes fed with wheat straw and inoculated with anaerobic granular sludge. <i>Waste Management</i> , 2019 , 85, 498-505	8.6	15
41	Glucose electro-fermentation as main driver for efficient H ₂ -producing bacteria selection in mixed cultures. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 2230-2238	6.7	15
40	Revealing extracellular electron transfer mediated parasitism: energetic considerations. <i>Scientific Reports</i> , 2017 , 7, 7766	4.9	15
39	Microbial anodic consortia fed with fermentable substrates in microbial electrolysis cells: Significance of microbial structures. <i>Bioelectrochemistry</i> , 2018 , 123, 219-226	5.6	15
38	The hydraulic retention time influences the abundance of <i>Enterobacter</i> , <i>Clostridium</i> and <i>Lactobacillus</i> during the hydrogen production from food waste. <i>Letters in Applied Microbiology</i> , 2019 , 69, 138-147	2.9	14
37	Mixotrophic growth of microalgae on volatile fatty acids is determined by their undissociated form. <i>Algal Research</i> , 2020 , 47, 101870	5	14
36	Formic acid pretreatment for enhanced production of bioenergy and biochemicals from organic solid waste. <i>Biomass and Bioenergy</i> , 2020 , 133, 105455	5.3	14
35	Basics of Bio-hydrogen Production by Dark Fermentation. <i>Green Energy and Technology</i> , 2018 , 199-220	0.6	11
34	Improvement of biohydrogen production from glycerol in micro-oxidative environment. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 17802-17812	6.7	11
33	A standardized biohydrogen potential protocol: An international round robin test approach. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 26237-26247	6.7	11
32	High robustness of a simplified microbial consortium producing hydrogen in long term operation of a biofilm fermentative reactor. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 2367-2376	6.7	11

31	Co-production of Hydrogen and Methane From the Organic Fraction of Municipal Solid Waste in a Pilot Scale Dark Fermenter and Methanogenic Biofilm Reactor. <i>Frontiers in Environmental Science</i> , 2018 , 6,	4.8	10
30	A strict anaerobic extreme thermophilic hydrogen-producing culture enriched from digested household waste. <i>Journal of Applied Microbiology</i> , 2009 , 106, 1041-9	4.7	10
29	Biogas sequestration from the headspace of a fermentative system enhances hydrogen production rate and yield. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 11011-11023	6.7	9
28	Safe Recycling of Sewage Sludge on Agricultural Land Biowaste. <i>Chemical Engineering Research and Design</i> , 2006 , 84, 253-257	5.5	9
27	Bioaugmentation enhances dark fermentative hydrogen production in cultures exposed to short-term temperature fluctuations. <i>Applied Microbiology and Biotechnology</i> , 2020 , 104, 439-449	5.7	9
26	Impact of the microbial inoculum source on pre-treatment efficiency for fermentative H ₂ production from glycerol. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 1597-1607	6.7	9
25	Glucose electro-fermentation with mixed cultures: A key role of the Clostridiaceae family. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 1694-1704	6.7	9
24	Novel Outlook in Microbial Ecology: Nonmutualistic Interspecies Electron Transfer. <i>Trends in Microbiology</i> , 2020 , 28, 245-253	12.4	8
23	Temperature and Inoculum Origin Influence the Performance of Ex-Situ Biological Hydrogen Methanation. <i>Molecules</i> , 2020 , 25,	4.8	8
22	Semi-continuous mono-digestion of OFMSW and Co-digestion of OFMSW with beech sawdust: Assessment of the maximum operational total solid content. <i>Journal of Environmental Management</i> , 2019 , 231, 1293-1302	7.9	8
21	Enhancing thermophilic dark fermentative hydrogen production at high glucose concentrations via bioaugmentation with <i>Thermotoga neapolitana</i> . <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 17241-17249	6.7	7
20	Trends and Challenges in Biohydrogen Production from Agricultural Waste 2017 , 69-95		7
19	Mitigating the variability of hydrogen production in mixed culture through bioaugmentation with exogenous pure strains. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 2617-2626	6.7	7
18	New sustainable bioconversion concept of date by-products (<i>Phoenix dactylifera</i> L.) to biohydrogen, biogas and date-syrup. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 297-305	6.7	7
17	Impacts of short-term temperature fluctuations on biohydrogen production and resilience of thermophilic microbial communities. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 8028-8037	6.7	6
16	Inhibition by the ionic strength of hydrogen production from the organic fraction of municipal solid waste. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 5854-5863	6.7	6
15	Robust operation through effluent recycling for hydrogen production from the organic fraction of municipal solid waste. <i>Bioresource Technology</i> , 2021 , 319, 124196	11	6
14	Modelling non-ideal bio-physical-chemical effects on high-solids anaerobic digestion of the organic fraction of municipal solid waste. <i>Journal of Environmental Management</i> , 2019 , 238, 408-419	7.9	5

13	Assessing practical identifiability during calibration and cross-validation of a structured model for high-solids anaerobic digestion. <i>Water Research</i> , 2019 , 164, 114932	12.5	5
12	Enhancement of corn stover conversion to carboxylates by extrusion and biotic triggers in solid-state fermentation. <i>Applied Microbiology and Biotechnology</i> , 2019 , 103, 489-503	5.7	5
11	Microbial dynamics in anaerobic enrichment cultures degrading di-n-butyl phthalic acid ester. <i>FEMS Microbiology Ecology</i> , 2008 , 66, 472-83	4.3	4
10	Standardized protocol for determination of biohydrogen potential. <i>MethodsX</i> , 2020 , 7, 100754	1.9	4
9	On the actual anode area that contributes to the current density produced by electroactive biofilms. <i>Electrochimica Acta</i> , 2018 , 259, 395-401	6.7	4
8	Mixotrophic Growth of on Acetate and Butyrate: Interplay Between Substrate, C:N Ratio and pH. <i>Frontiers in Microbiology</i> , 2021 , 12, 703614	5.7	4
7	Microbial Ecology of Anodic Biofilms: From Species Selection to Microbial Interactions 2018 , 63-85		1
6	Circular Economy Applied to Organic Residues and Wastewater: Research Challenges. <i>Waste and Biomass Valorization</i> , 1	3.2	1
5	Lactic acid production from food waste using a microbial consortium: Focus on key parameters for process upscaling and fermentation residues valorization.. <i>Bioresource Technology</i> , 2022 , 127230	11	1
4	Bioelectrochemical Systems for the Valorization of Organic Residues 2019 , 511-534		0
3	Mechanisms underlying <i>Clostridium pasteurianum</i> metabolic shift when grown with <i>Geobacter sulfurreducens</i> .. <i>Applied Microbiology and Biotechnology</i> , 2021 , 106, 865	5.7	0
2	Enhanced Fermentative Hydrogen Production from Food Waste in Continuous Reactor after Butyric Acid Treatment. <i>Energies</i> , 2022 , 15, 4048	3.1	0
1	Methods to Assess Biological Transformation of Biomass 2020 , 641-730		