Eric Trably

List of Publications by Year in descending order

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121 papers	8,719 citations	46984 47 h-index	45285 90 g-index
123 all docs	123 docs citations	123 times ranked	6697 citing authors

#	Article	IF	Citations
1	A review on dark fermentative biohydrogen production from organic biomass: Process parameters and use of by-products. Applied Energy, 2015, 144, 73-95.	5.1	747
2	Hydrogen production from agricultural waste by dark fermentation: A review. International Journal of Hydrogen Energy, 2010, 35, 10660-10673.	3.8	679
3	Do furanic and phenolic compounds of lignocellulosic and algae biomass hydrolyzate inhibit anaerobic mixed cultures? A comprehensive review. Biotechnology Advances, 2014, 32, 934-951.	6.0	363
4	Acetate Oxidation Is the Dominant Methanogenic Pathway from Acetate in the Absence of Methanosaetaceae. Applied and Environmental Microbiology, 2006, 72, 5138-5141.	1.4	357
5	Total solids content drives high solid anaerobic digestion via mass transfer limitation. Bioresource Technology, 2012, 111, 55-61.	4.8	320
6	Lignocellulosic Materials Into Biohydrogen and Biomethane: Impact of Structural Features and Pretreatment. Critical Reviews in Environmental Science and Technology, 2013, 43, 260-322.	6.6	318
7	Electro-Fermentation: How To Drive Fermentation Using Electrochemical Systems. Trends in Biotechnology, 2016, 34, 856-865.	4.9	284
8	Pretreatment of food waste for methane and hydrogen recovery: A review. Bioresource Technology, 2018, 249, 1025-1039.	4.8	232
9	Microbial ecology of fermentative hydrogen producing bioprocesses: useful insights for driving the ecosystem function. FEMS Microbiology Reviews, 2017, 41, 158-181.	3.9	194
10	Predictive Models of Biohydrogen and Biomethane Production Based on the Compositional and Structural Features of Lignocellulosic Materials. Environmental Science & Technology, 2012, 46, 12217-12225.	4.6	176
11	Inhibition of fermentative hydrogen production by lignocellulose-derived compounds in mixed cultures. International Journal of Hydrogen Energy, 2012, 37, 3150-3159.	3.8	167
12	Addition of granular activated carbon and trace elements to favor volatile fatty acid consumption during anaerobic digestion of food waste. Bioresource Technology, 2018, 260, 157-168.	4.8	155
13	Nutritional stress induces exchange of cell material and energetic coupling between bacterial species. Nature Communications, 2015, 6, 6283.	5.8	136
14	Biohydrogen production from food waste: Current status, limitations, and future perspectives. Bioresource Technology, 2018, 248, 79-87.	4.8	134
15	Integrating microalgae production with anaerobic digestion: a biorefinery approach. Biofuels, Bioproducts and Biorefining, 2014, 8, 516-529.	1.9	129
16	Total solids content: a key parameter of metabolic pathways in dry anaerobic digestion. Biotechnology for Biofuels, 2013, 6, 164.	6.2	128
17	Coupling dark fermentation and microbial electrolysis to enhance bio-hydrogen production from agro-industrial wastewaters and by-products in a bio-refinery framework. International Journal of Hydrogen Energy, 2017, 42, 1609-1621.	3.8	124
18	Biodegradation of polycyclic aromatic hydrocarbons: Using microbial bioelectrochemical systems to overcome an impasse. Environmental Pollution, 2017, 231, 509-523.	3.7	122

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19	A review on key design and operational parameters to optimize and develop hydrothermal liquefaction of biomass for biorefinery applications. Green Chemistry, 2021, 23, 1404-1446.	4.6	117
20	The environmental biorefinery: state-of-the-art on the production of hydrogen and value-added biomolecules in mixed-culture fermentation. Green Chemistry, 2018, 20, 3159-3179.	4.6	109
21	Biomass hydrolysis inhibition at high hydrogen partial pressure in solid-state anaerobic digestion. Bioresource Technology, 2015, 190, 106-113.	4.8	107
22	Biohydrogen production by dark fermentation: scaling-up and technologies integration for a sustainable system. Reviews in Environmental Science and Biotechnology, 2015, 14, 761-785.	3.9	106
23	Alkaline pretreatment to enhance one-stage CH4 and two-stage H2/CH4 production from sunflower stalks: Mass, energy and economical balances. Chemical Engineering Journal, 2015, 260, 377-385.	6.6	104
24	Long-term continuous production of H 2 in a microbial electrolysis cell (MEC) treating saline wastewater. Water Research, 2015, 81, 149-156.	5.3	99
25	Bidirectional microbial electron transfer: Switching an acetate oxidizing biofilm to nitrate reducing conditions. Biosensors and Bioelectronics, 2016, 75, 352-358.	5.3	88
26	Effects of operational parameters on dark fermentative hydrogen production from biodegradable complex waste biomass. Waste Management, 2016, 50, 55-64.	3.7	87
27	Dry anaerobic digestion of food waste and cardboard at different substrate loads, solid contents and co-digestion proportions. Bioresource Technology, 2017, 233, 166-175.	4.8	87
28	Potentialities of dark fermentation effluents as substrates for microalgae growth: A review. Process Biochemistry, 2016, 51, 1843-1854.	1.8	85
29	Life cycle assessment of hydrogen production from biogas reforming. International Journal of Hydrogen Energy, 2016, 41, 6064-6075.	3.8	85
30	Effect of enzyme addition on fermentative hydrogen production from wheat straw. International Journal of Hydrogen Energy, 2012, 37, 10639-10647.	3.8	82
31	Sub-dominant bacteria as keystone species in microbial communities producing bio-hydrogen. International Journal of Hydrogen Energy, 2013, 38, 4975-4985.	3.8	79
32	Assessment of hydrothermal pretreatment of various lignocellulosic biomass with CO 2 catalyst for enhanced methane and hydrogen production. Water Research, 2017, 120, 32-42.	5.3	79
33	Dark-fermentative biohydrogen pathways and microbial networks in continuous stirred tank reactors: Novel insights on their control. Applied Energy, 2017, 198, 77-87.	5.1	77
34	Use of fermentative metabolites for heterotrophic microalgae growth: Yields and kinetics. Bioresource Technology, 2015, 175, 342-349.	4.8	76
35	Biohydrogen production from food waste by coupling semi-continuous dark-photofermentation and residue post-treatment to anaerobic digestion: A synergy for energy recovery. International Journal of Hydrogen Energy, 2015, 40, 16045-16055.	3.8	74
36	Predictive and explicative models of fermentative hydrogen production from solid organic waste: Role of butyrate and lactate pathways. International Journal of Hydrogen Energy, 2014, 39, 7476-7485.	3.8	71

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37	Specific inhibition of biohydrogen-producing Clostridium sp. after dilute-acid pretreatment ofÂsunflower stalks. International Journal of Hydrogen Energy, 2013, 38, 12273-12282.	3.8	68
38	How to use molecular biology tools for the study of the anaerobic digestion process?. Reviews in Environmental Science and Biotechnology, 2015, 14, 555-593.	3.9	60
39	Consistent 1,3-propanediol production from glycerol in mixed culture fermentation over a wide range of pH. Biotechnology for Biofuels, 2016, 9, 32.	6.2	59
40	Electroâ€fermentation triggering population selection in mixedâ€culture glycerol fermentation. Microbial Biotechnology, 2018, 11, 74-83.	2.0	58
41	Biohydrogen production at pH below 3.0: Is it possible?. Water Research, 2018, 128, 350-361.	5.3	58
42	Successful Treatment of Low PAH-Contaminated Sewage Sludge in Aerobic Bioreactors (7 pp) *. Environmental Science and Pollution Research, 2006, 13, 170-176.	2.7	57
43	Effect of total solids content on biohydrogen production and lactic acid accumulation during dark fermentation of organic waste biomass. Bioresource Technology, 2018, 248, 180-186.	4.8	56
44	Continuous biohydrogen production from a food industry waste: Influence of operational parameters and microbial community analysis. Journal of Cleaner Production, 2018, 174, 1054-1063.	4.6	56
45	High current density via direct electron transfer by the halophilic anode respiring bacterium Geoalkalibacter subterraneus. Physical Chemistry Chemical Physics, 2013, 15, 19699.	1.3	54
46	Raw dark fermentation effluent to support heterotrophic microalgae growth: microalgae successfully outcompete bacteria for acetate. Algal Research, 2015, 12, 119-125.	2.4	52
47	Bioelectrochemical treatment of table olive brine processing wastewater for biogas production and phenolic compounds removal. Water Research, 2016, 100, 316-325.	5.3	49
48	The type of carbohydrates specifically selects microbial community structures and fermentation patterns. Bioresource Technology, 2016, 221, 541-549.	4.8	49
49	A comprehensive review on two-stage integrative schemes for the valorization of dark fermentative effluents. Critical Reviews in Biotechnology, 2018, 38, 868-882.	5.1	48
50	Biomethanation processes: new insights on the effect of a high H2 partial pressure on microbial communities. Biotechnology for Biofuels, 2020, 13, 141.	6.2	45
51	Microbial community signature of high-solid content methanogenic ecosystems. Bioresource Technology, 2013, 133, 256-262.	4.8	42
52	Hydrogen metabolic patterns driven by Clostridium-Streptococcus community shifts in a continuous stirred tank reactor. Applied Microbiology and Biotechnology, 2018, 102, 2465-2475.	1.7	42
53	Changes in hydrogenase genetic diversity and proteomic patterns in mixed-culture dark fermentation of mono-, di- and tri-saccharides. International Journal of Hydrogen Energy, 2011, 36, 11654-11665.	3.8	41
54	Specific and efficient electrochemical selection of Geoalkalibacter subterraneus and Desulfuromonas acetoxidans in high current-producing biofilms. Bioelectrochemistry, 2015, 106, 221-225.	2.4	41

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55	Two-Stage Alkalineâ€“Enzymatic Pretreatments To Enhance Biohydrogen Production from Sunflower Stalks. Environmental Science & Technology, 2013, 47, 12591-12599.	4.6	40
56	Kinetic study of dry anaerobic co-digestion of food waste and cardboard for methane production. Waste Management, 2017, 69, 470-479.	3.7	40
57	Co-ensiling as a new technique for long-term storage of agro-industrial waste with low sugar content prior to anaerobic digestion. Waste Management, 2018, 71, 147-155.	3.7	40
58	Impact of hydraulic retention time (HRT) and pH on dark fermentative hydrogen production from glycerol. Energy, 2017, 141, 358-367.	4.5	39
59	The hydraulic retention time influences the abundance of Enterobacter, Clostridium and Lactobacillus during the hydrogen production from food waste. Letters in Applied Microbiology, 2019, 69, 138-147.	1.0	39
60	Total solid content drives hydrogen production through microbial selection during thermophilic fermentation. Bioresource Technology, 2014, 166, 610-615.	4.8	38
61	Methanosarcina plays a main role during methanogenesis of high-solids food waste and cardboard. Waste Management, 2018, 76, 423-430.	3.7	38
62	High-solids anaerobic digestion model for homogenized reactors. Water Research, 2018, 142, 501-511.	5.3	38
63	Impact of Anaerobic and Aerobic Processes on PolyChloroBiphenyl Removal in Contaminated Sewage Sludge. Biodegradation, 2006, 17, 9-17.	1.5	37
64	Statistical tools for the optimization of a highly reproducible method for the analysis of polycyclic aromatic hydrocarbons in sludge samples. International Journal of Environmental Analytical Chemistry, 2004, 84, 995-1008.	1.8	36
65	Growth of Chlorella sorokiniana on a mixture of volatile fatty acids: The effects of light and temperature. Bioresource Technology, 2015, 198, 852-860.	4.8	36
66	High hydrogen production rate in a submerged membrane anaerobic bioreactor. International Journal of Hydrogen Energy, 2017, 42, 24656-24666.	3.8	35
67	Cooperative growth of Geobacter sulfurreducens and Clostridium pasteurianum with subsequent metabolic shift in glycerol fermentation. Scientific Reports, 2017, 7, 44334.	1.6	34
68	Functional versus phylogenetic fingerprint analyses for monitoring hydrogen-producing bacterial populations in dark fermentation cultures. International Journal of Hydrogen Energy, 2011, 36, 3870-3879.	3.8	32
69	Mixotrophic growth of microalgae on volatile fatty acids is determined by their undissociated form. Algal Research, 2020, 47, 101870.	2.4	32
70	Anaerobic Removal of Trace Organic Contaminants in Sewage Sludge: 15 Years of Experience. Pedosphere, 2012, 22, 508-517.	2.1	31
71	Fermentative hydrogen production under moderate halophilic conditions. International Journal of Hydrogen Energy, 2014, 39, 7508-7517.	3.8	31
72	Development and application of a functional CE-SSCP fingerprinting method based on [Feâ€“Fe]-hydrogenase genes for monitoring hydrogen-producing Clostridium in mixed cultures. International Journal of Hydrogen Energy, 2010, 35, 13158-13167.	3.8	30

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73	Microbial anodic consortia fed with fermentable substrates in microbial electrolysis cells: Significance of microbial structures. Bioelectrochemistry, 2018, 123, 219-226.	2.4	30
74	Behavior of two-chamber microbial electrochemical systems started-up with different ion-exchange membrane separators. Bioresource Technology, 2019, 278, 279-286.	4.8	29
75	Circular Economy Applied to Organic Residues and Wastewater: Research Challenges. Waste and Biomass Valorization, 2022, 13, 1267-1276.	1.8	26
76	Effect of post-digestion temperature on serial CSTR biogas reactor performance. Water Research, 2009, 43, 669-676.	5.3	25
77	Innovative CO2 pretreatment for enhancing biohydrogen production from the organic fraction of municipal solid waste (OFMSW). International Journal of Hydrogen Energy, 2012, 37, 14062-14071.	3.8	24
78	Glucose electro-fermentation as main driver for efficient H2-producing bacteria selection in mixed cultures. International Journal of Hydrogen Energy, 2019, 44, 2230-2238.	3.8	24
79	Microbial characterization of anode-respiring bacteria within biofilms developed from cultures previously enriched in dissimilatory metal-reducing bacteria. Bioresource Technology, 2015, 195, 283-287.	4.8	23
80	Adaptation of acidogenic sludge to increasing glycerol concentrations for biohydrogen production. Applied Microbiology and Biotechnology, 2015, 99, 8295-8308.	1.7	23
81	A standardized biohydrogen potential protocol: An international round robin test approach. International Journal of Hydrogen Energy, 2019, 44, 26237-26247.	3.8	23
82	Reversibility of hydrolysis inhibition at high hydrogen partial pressure in dry anaerobic digestion processes fed with wheat straw and inoculated with anaerobic granular sludge. Waste Management, 2019, 85, 498-505.	3.7	23
83	Revealing extracellular electron transfer mediated parasitism: energetic considerations. Scientific Reports, 2017, 7, 7766.	1.6	21
84	Basics of Bio-hydrogen Production by Dark Fermentation. Green Energy and Technology, 2018, , 199-220.	0.4	21
85	Enhancement of mass transfer conditions to increase the productivity and efficiency of dark fermentation in continuous reactors. Fuel, 2019, 254, 115648.	3.4	21
86	High-solids anaerobic digestion requires a trade-off between total solids, inoculum-to-substrate ratio and ammonia inhibition. International Journal of Environmental Science and Technology, 2019, 16, 7011-7024.	1.8	21
87	Co-production of Hydrogen and Methane From the Organic Fraction of Municipal Solid Waste in a Pilot Scale Dark Fermenter and Methanogenic Biofilm Reactor. Frontiers in Environmental Science, 2018, 6, .	1.5	20
88	Temperature and Inoculum Origin Influence the Performance of Ex-Situ Biological Hydrogen Methanation. Molecules, 2020, 25, 5665.	1.7	20
89	Mixotrophic Growth of Chlorella sorokiniana on Acetate and Butyrate: Interplay Between Substrate, C:N Ratio and pH. Frontiers in Microbiology, 2021, 12, 703614.	1.5	20
90	Lactic acid production from food waste using a microbial consortium: Focus on key parameters for process upscaling and fermentation residues valorization. Bioresource Technology, 2022, 354, 127230.	4.8	20

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91	Cardboard proportions and total solids contents as driving factors in dry co-fermentation of food waste. Bioresource Technology, 2018, 248, 229-237.	4.8	19
92	New sustainable bioconversion concept of date by-products (Phoenix dactylifera L.) to biohydrogen, biogas and date-syrup. International Journal of Hydrogen Energy, 2021, 46, 297-305.	3.8	19
93	Formic acid pretreatment for enhanced production of bioenergy and biochemicals from organic solid waste. Biomass and Bioenergy, 2020, 133, 105455.	2.9	18
94	Bioaugmentation enhances dark fermentative hydrogen production in cultures exposed to short-term temperature fluctuations. Applied Microbiology and Biotechnology, 2020, 104, 439-449.	1.7	18
95	Impact of the microbial inoculum source on pre-treatment efficiency for fermentative H2 production from glycerol. International Journal of Hydrogen Energy, 2020, 45, 1597-1607.	3.8	18
96	Biogas sequestration from the headspace of a fermentative system enhances hydrogen production rate and yield. International Journal of Hydrogen Energy, 2020, 45, 11011-11023.	3.8	18
97	Robust operation through effluent recycling for hydrogen production from the organic fraction of municipal solid waste. Bioresource Technology, 2021, 319, 124196.	4.8	18
98	Enhancing thermophilic dark fermentative hydrogen production at high glucose concentrations via bioaugmentation with Thermotoga neapolitana. International Journal of Hydrogen Energy, 2020, 45, 17241-17249.	3.8	15
99	Glucose electro-fermentation with mixed cultures: A key role of the Clostridiaceae family. International Journal of Hydrogen Energy, 2021, 46, 1694-1704.	3.8	15
100	Standardized protocol for determination of biohydrogen potential. MethodsX, 2020, 7, 100754.	0.7	14
101	Novel Outlook in Microbial Ecology: Nonmutualistic Interspecies Electron Transfer. Trends in Microbiology, 2020, 28, 245-253.	3.5	14
102	Safe Recycling of Sewage Sludge on Agricultural Landâ€"Biowaste. Chemical Engineering Research and Design, 2006, 84, 253-257.	2.7	12
103	High robustness of a simplified microbial consortium producing hydrogen in long term operation of a biofilm fermentative reactor. International Journal of Hydrogen Energy, 2016, 41, 2367-2376.	3.8	12
104	Improvement of biohydrogen production from glycerol in micro-oxidative environment. International Journal of Hydrogen Energy, 2019, 44, 17802-17812.	3.8	12
105	Mitigating the variability of hydrogen production in mixed culture through bioaugmentation with exogenous pure strains. International Journal of Hydrogen Energy, 2020, 45, 2617-2626.	3.8	12
106	A strict anaerobic extreme thermophilic hydrogen-producing culture enriched from digested household waste. Journal of Applied Microbiology, 2009, 106, 1041-1049.	1.4	10
107	Semi-continuous mono-digestion of OFMSW and Co-digestion of OFMSW with beech sawdust: Assessment of the maximum operational total solid content. Journal of Environmental Management, 2019, 231, 1293-1302.	3.8	10
108	Trends and Challenges in Biohydrogen Production from Agricultural Waste. , 2017, , 69-95.		9

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109	On the actual anode area that contributes to the current density produced by electroactive biofilms. Electrochimica Acta, 2018, 259, 395-401.	2.6	8
110	Assessing practical identifiability during calibration and cross-validation of a structured model for high-solids anaerobic digestion. Water Research, 2019, 164, 114932.	5.3	8
111	Impacts of short-term temperature fluctuations onÂbiohydrogen production and resilience ofÂthermophilic microbial communities. International Journal of Hydrogen Energy, 2019, 44, 8028-8037.	3.8	8
112	Inhibition by the ionic strength of hydrogen production from the organic fraction of municipal solid waste. International Journal of Hydrogen Energy, 2020, 45, 5854-5863.	3.8	8
113	Modelling non-ideal bio-physical-chemical effects on high-solids anaerobic digestion of the organic fraction of municipal solid waste. Journal of Environmental Management, 2019, 238, 408-419.	3.8	7
114	Enhancement of corn stover conversion to carboxylates by extrusion and biotic triggers in solid-state fermentation. Applied Microbiology and Biotechnology, 2019, 103, 489-503.	1.7	7
115	Microbial dynamics in anaerobic enrichment cultures degrading di-n-butyl phthalic acid ester. FEMS Microbiology Ecology, 2008, 66, 472-483.	1.3	5
116	Enhanced Fermentative Hydrogen Production from Food Waste in Continuous Reactor after Butyric Acid Treatment. Energies, 2022, 15, 4048.	1.6	4
117	Populational and metabolic shifts induced by acetate, butyrate and lactate in dark fermentation. International Journal of Hydrogen Energy, 2022, 47, 28385-28398.	3.8	4
118	Microbial Ecology of Anodic Biofilms: From Species Selection to Microbial Interactions. , 2018, , 63-85.		3
119	Bioelectrochemical Systems for the Valorization of Organic Residues. , 2019, , 511-534.		3
120	Mechanisms underlying Clostridium pasteurianumâ€™s metabolic shift when grown with Geobacter sulfurreducens. Applied Microbiology and Biotechnology, 2022, 106, 865-876.	1.7	3
121	Methods to Assess Biological Transformation of Biomass. , 2020, , 641-730.		0