Chyi-How Lay

List of Publications by Year
in descending order

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76 papers	3,861 citations	109137 35 h-index	123241 61 g-index
78 all docs	78 docs citations	78 times ranked	3210 citing authors

#	Article	IF	Citations
1	Carbon/nitrogen-ratio effect on fermentative hydrogen production by mixed microflora. International Journal of Hydrogen Energy, 2004, 29, 41-45.	3.8	318
2	Fermentative hydrogen production from wastewaters: A review and prognosis. International Journal of Hydrogen Energy, 2012, 37, 15632-15642.	3.8	259
3	A nutrient formulation for fermentative hydrogen production using anaerobic sewage sludge microflora. International Journal of Hydrogen Energy, 2005, 30, 285-292.	3.8	231
4	Effects of carbonate and phosphate concentrations on hydrogen production using anaerobic sewage sludge microflora. International Journal of Hydrogen Energy, 2004, 29, 275-281.	3.8	194
5	Recent insights into the cell immobilization technology applied for dark fermentative hydrogen production. Bioresource Technology, 2016, 219, 725-737.	4.8	161
6	Dark fermentative hydrogen production from lignocellulosic hydrolyzates â€“ A review. Biomass and Bioenergy, 2014, 67, 145-159.	2.9	124
7	Thermophilic dark fermentation of untreated rice straw using mixed cultures for hydrogen production. International Journal of Hydrogen Energy, 2012, 37, 15540-15546.	3.8	114
8	State of the art and future concept of food waste fermentation to bioenergy. Renewable and Sustainable Energy Reviews, 2016, 53, 547-557.	8.2	110
9	Review on sustainable production of biochar through hydrothermal liquefaction: Physico-chemical properties and applications. Bioresource Technology, 2020, 310, 123414.	4.8	109
10	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
11	Biohydrogen and biomethane from water hyacinth (Eichhornia crassipes) fermentation: Effects of substrate concentration and incubation temperature. International Journal of Hydrogen Energy, 2011, 36, 14195-14203.	3.8	105
12	Biohydrogen production from soluble condensed molasses fermentation using anaerobic fermentation. International Journal of Hydrogen Energy, 2010, 35, 13445-13451.	3.8	97
13	A pilot-scale high-rate biohydrogen production system with mixed microflora. International Journal of Hydrogen Energy, 2011, 36, 8758-8764.	3.8	90
14	Recent advanced biotechnological strategies to enhance photo-fermentative biohydrogen production by purple non-sulphur bacteria: An overview. International Journal of Hydrogen Energy, 2020, 45, 13211-13230.	3.8	79
15	Lipid accumulating microalgae cultivation in textile wastewater: Environmental parameters optimization. Journal of the Taiwan Institute of Chemical Engineers, 2017, 79, 1-6.	2.7	76
16	Hydrogen production by the anaerobic fermentation from acid hydrolyzed rice straw hydrolysate. International Journal of Hydrogen Energy, 2011, 36, 14280-14288.	3.8	72
17	Optimization of Hydrolysis-Acidogenesis Phase of Swine Manure for Biogas Production Using Two-Stage Anaerobic Fermentation. Processes, 2021, 9, 1324.	1.3	66
18	Fermentative biohydrogen production and its byproducts: A mini review of current technology developments. Renewable and Sustainable Energy Reviews, 2018, 82, 4215-4220.	8.2	65

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19	A critical review on global trends in biogas scenario with its up-gradation techniques for fuel cell and future perspectives. International Journal of Hydrogen Energy, 2021, 46, 16734-16750.	3.8	63
20	Electricity generation from swine wastewater in microbial fuel cell: Hydraulic reaction time effect. International Journal of Hydrogen Energy, 2016, 41, 21820-21826.	3.8	62
21	Highâ€efficiency hydrogen production by an anaerobic, thermophilic enrichment culture from an Icelandic hot spring. Biotechnology and Bioengineering, 2008, 101, 665-678.	1.7	60
22	Bioprospecting Thermophilic Microorganisms from Icelandic Hot Springs for Hydrogen and Ethanol Production. Energy & Fuels, 2008, 22, 134-140.	2.5	55
23	Starch-containing textile wastewater treatment for biogas and microalgae biomass production. Journal of Cleaner Production, 2017, 168, 331-337.	4.6	55
24	Bioelectricity generation using microalgal biomass as electron donor in a bio-anode microbial fuel cell. Bioresource Technology, 2018, 270, 286-293.	4.8	55
25	Co-fermentation of water hyacinth and beverage wastewater in powder and pellet form for hydrogen production. Bioresource Technology, 2013, 135, 610-615.	4.8	54
26	Power generation in fed-batch and continuous up-flow microbial fuel cell from synthetic wastewater. Energy, 2015, 91, 235-241.	4.5	54
27	Recent developments on alternative fuels, energy and environment for sustainability. Bioresource Technology, 2020, 317, 124010.	4.8	50
28	Performance and population analysis of hydrogen production from sugarcane juice by non-sterile continuous stirred tank reactor augmented with Clostridium butyricum. International Journal of Hydrogen Energy, 2011, 36, 8697-8703.	3.8	49
29	Simultaneous hydrogen and ethanol production from sweet potato via dark fermentation. Journal of Cleaner Production, 2012, 27, 155-164.	4.6	47
30	Pilot-scale hydrogen fermentation system start-up performance. International Journal of Hydrogen Energy, 2010, 35, 13452-13457.	3.8	46
31	Direct fermentation of sweet potato to produce maximal hydrogen and ethanol. Applied Energy, 2012, 100, 10-18.	5.1	46
32	Fermentative biohydrogen production from starch-containing textile wastewater. International Journal of Hydrogen Energy, 2012, 37, 2050-2057.	3.8	42
33	Co-substrate strategy for improved power production and chlorophenol degradation in aÂmicrobial fuel cell. International Journal of Hydrogen Energy, 2019, 44, 20312-20322.	3.8	42
34	Anaerobic hydrogen and methane production from low-strength beverage wastewater. International Journal of Hydrogen Energy, 2019, 44, 14351-14361.	3.8	39
35	Sustainable bioenergy production from tofu-processing wastewater by anaerobic hydrogen fermentation for onsite energy recovery. Renewable Energy, 2013, 58, 60-67.	4.3	38
36	Seed inocula for biohydrogen production from biodiesel solid residues. International Journal of Hydrogen Energy, 2012, 37, 15489-15495.	3.8	35

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37	Optimizing biohydrogen production from mushroom cultivation waste using anaerobic mixed cultures. International Journal of Hydrogen Energy, 2012, 37, 16473-16478.	3.8	34
38	Effects of hydraulic retention time on biohythane production via single-stage anaerobic fermentation in a two-compartment bioreactor. Bioresource Technology, 2019, 292, 121869.	4.8	32
39	Recent trends and prospects in biohythane research: An overview. International Journal of Hydrogen Energy, 2020, 45, 5864-5873.	3.8	32
40	Enhancement of fermentative biohydrogen production from textile desizing wastewater via coagulation-pretreatment. International Journal of Hydrogen Energy, 2017, 42, 12153-12158.	3.8	31
41	Effect of effluent recycle ratio in a continuous anaerobic biohydrogen production system. Journal of Cleaner Production, 2012, 32, 236-243.	4.6	29
42	Microalgae cultivation using biogas and digestate carbon sources. Biomass and Bioenergy, 2019, 122, 426-432.	2.9	28
43	Characterization of Hemp (Cannabis sativa L.) Biodiesel Blends with Euro Diesel, Butanol and Diethyl Ether Using FT-IR, UVâ€“Vis, TGA and DSC Techniques. Waste and Biomass Valorization, 2020, 11, 1097-1113.	1.8	26
44	Effect of food to microorganisms (F/M) ratio on biohythane production via single-stage dark fermentation. International Journal of Hydrogen Energy, 2021, 46, 11313-11324.	3.8	25
45	Fermentative bioenergy production from distillers grains using mixed microflora. International Journal of Hydrogen Energy, 2012, 37, 15547-15555.	3.8	23
46	Effect of hydraulic retention time on continuous electricity production from xylose in up-flow microbial fuel cell. International Journal of Hydrogen Energy, 2017, 42, 27494-27501.	3.8	23
47	Immobilized Chlorella species mixotrophic cultivation at various textile wastewater concentrations. Journal of Water Process Engineering, 2020, 38, 101609.	2.6	23
48	Economic potential of bioremediation using immobilized microalgae-based microbial fuel cells. Clean Technologies and Environmental Policy, 2021, 23, 2251-2264.	2.1	23
49	Bioelectricity production on xylose with a compost enrichment culture. International Journal of Hydrogen Energy, 2013, 38, 15606-15612.	3.8	22
50	Textile wastewater bioremediation using immobilized Chlorella sp. Wu-G23 with continuous culture. Clean Technologies and Environmental Policy, 2021, 23, 153-161.	2.1	20
51	Enhancement of anaerobic biohydrogen/methane production from cellulose using heat-treated activated sludge. Water Science and Technology, 2011, 63, 1849-1854.	1.2	17
52	Biohydrogen production in an anaerobic baffled stacking reactor: Recirculation strategy and substrate concentration effects. Biochemical Engineering Journal, 2016, 109, 59-64.	1.8	17
53	Biogas production from beverage factory wastewater in a mobile bioenergy station. Chemosphere, 2021, 264, 128564.	4.2	17
54	Enhanced photocatalytic performance of metal silver and carbon dots co-doped BiOI photocatalysts and mechanism investigation. Environmental Science and Pollution Research, 2020, 27, 17516-17529.	2.7	16

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55	Fabrication of ordered mesoporous POMs/SiO2â€“NH2 nanofibers for production of DFF from 5-HMF for cellulose wastewater resource recovery. Chemosphere, 2021, 277, 130316.	4.2	16
56	Effect of nano zero-valent iron (nZVI) on biohydrogen production in anaerobic fermentation of oil palm frond juice using Clostridium butyricum JKT37. Biomass and Bioenergy, 2021, 154, 106270.	2.9	16
57	Continuous biohydrogen production from coagulation-pretreated textile desizing wastewater. International Journal of Hydrogen Energy, 2017, 42, 29159-29165.	3.8	15
58	Constructing a cellulosic yeast host with an efficient cellulase cocktail. Biotechnology and Bioengineering, 2018, 115, 751-761.	1.7	13
59	Anaerobic hydrogen production from unhydrolyzed mushroom farm waste by indigenous microbiota. Journal of Bioscience and Bioengineering, 2017, 124, 425-429.	1.1	12
60	Hydrothermally extraction of saponin from Acanthophyllum glandulosum root â€“ Physico-chemical characteristics and antibacterial activity evaluation. Biotechnology Reports (Amsterdam,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 537 Td (	2.1	10
61	Biohydrogen Production from Mushroom Cultivation Waste by Anaerobic Solidâ€state Fermentation. Journal of the Chinese Chemical Society, 2016, 63, 199-204.	0.8	9
62	Continuous anaerobic hydrogen and methane production using water hyacinth feedstock. Arabian Journal for Science and Engineering, 2016, 41, 2563-2571.	1.1	9
63	Biohydrogen Production from Textile Wastewater by Mixed Microflora in an Intermittentâ€flow, Stirred Tank Reactor: Effect of Feeding Frequency. Journal of the Chinese Chemical Society, 2014, 61, 791-796.	0.8	8
64	Fermentative Hydrogen and Methane Productions from Organic Wastes: a Review. Current Biochemical Engineering, 2015, 3, 16-23.	1.3	8
65	Comparison of Potential Environmental Impacts and Waste-to-Energy Efficiency for Kitchen Waste Treatment Scenarios in Central Taiwan. Processes, 2021, 9, 696.	1.3	8
66	Anaerobic Biohydrogen Production Using Rice Husk-Based Biologics. Waste and Biomass Valorization, 2020, 11, 1059-1068.	1.8	6
67	Sustainable cultivation via waste soybean extract for higher vaccenic acid production by purple non-sulfur bacteria. Clean Technologies and Environmental Policy, 2021, 23, 103-112.	2.1	5
68	Hygro-Thermo-Mechanical Responses of Balsa Wood Core Sandwich Composite Beam Exposed to Fire. Processes, 2020, 8, 103.	1.3	4
69	Exploring the effect of attractive and repulsive magnetic field on electricity generation and microbial community in microbial fuel cells. International Journal of Energy Research, 2022, 46, 822-831.	2.2	4
70	Anaerobic fermentative system based scheme for green energy sustainable houses. International Journal of Hydrogen Energy, 2011, 36, 8719-8726.	3.8	3
71	High-Strength Wastewater Treatment Using Anaerobic Processes. , 2017, , 321-357.		2
72	Biohydrogen Production Perspectives from Organic Waste with Focus on Asia. , 2019, , 413-435.		2

#	ARTICLE	IF	CITATIONS
73	Exploring the environmental and economic potential for biogas production from swine manure wastewater by life cycle assessment. Clean Technologies and Environmental Policy, 0, , 1.	2.1	2
74	Research and Development of Biohydrogen Production in Taiwan. , 2010, , 331-344.		1
75	Application of Cold Region Regenerable Biomass in Phosphorus Adsorption in Reclaimed Water. Water (Switzerland), 2019, 11, 1815.	1.2	1
76	A Case Study on Popular Science Education: Mobile Green Energy Castle into Countryside. , 2017, , .		0