

# Chyi-How Lay

## List of Publications by Citations

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73  
papers

2,956  
citations

31  
h-index

53  
g-index

78  
ext. papers

3,406  
ext. citations

6.6  
avg, IF

5.58  
L-index

#	Paper	IF	Citations
73	Carbon/nitrogen-ratio effect on fermentative hydrogen production by mixed microflora. <i>International Journal of Hydrogen Energy</i> , <b>2004</b> , 29, 41-45	6.7	275
72	A nutrient formulation for fermentative hydrogen production using anaerobic sewage sludge microflora. <i>International Journal of Hydrogen Energy</i> , <b>2005</b> , 30, 285-292	6.7	215
71	Fermentative hydrogen production from wastewaters: A review and prognosis. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 15632-15642	6.7	211
70	Effects of carbonate and phosphate concentrations on hydrogen production using anaerobic sewage sludge microflora. <i>International Journal of Hydrogen Energy</i> , <b>2004</b> , 29, 275-281	6.7	179
69	Recent insights into the cell immobilization technology applied for dark fermentative hydrogen production. <i>Bioresource Technology</i> , <b>2016</b> , 219, 725-737	11	123
68	Dark fermentative hydrogen production from lignocellulosic hydrolyzates [A review]. <i>Biomass and Bioenergy</i> , <b>2014</b> , 67, 145-159	5.3	112
67	Biohydrogen production from soluble condensed molasses fermentation using anaerobic fermentation. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 13445-13451	6.7	90
66	State of the art and future concept of food waste fermentation to bioenergy. <i>Renewable and Sustainable Energy Reviews</i> , <b>2016</b> , 53, 547-557	16.2	89
65	Thermophilic dark fermentation of untreated rice straw using mixed cultures for hydrogen production. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 15540-15546	6.7	88
64	Biohydrogen and biomethane from water hyacinth ( <i>Eichhornia crassipes</i> ) fermentation: Effects of substrate concentration and incubation temperature. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 14195-14203	6.7	87
63	Biohydrogen production by dark fermentation: scaling-up and technologies integration for a sustainable system. <i>Reviews in Environmental Science and Biotechnology</i> , <b>2015</b> , 14, 761-785	13.9	77
62	A pilot-scale high-rate biohydrogen production system with mixed microflora. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 8758-8764	6.7	77
61	Hydrogen production by the anaerobic fermentation from acid hydrolyzed rice straw hydrolysate. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 14280-14288	6.7	62
60	Review on sustainable production of biochar through hydrothermal liquefaction: Physico-chemical properties and applications. <i>Bioresource Technology</i> , <b>2020</b> , 310, 123414	11	56
59	Lipid accumulating microalgae cultivation in textile wastewater: Environmental parameters optimization. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , <b>2017</b> , 79, 1-6	5.3	53
58	High-efficiency hydrogen production by an anaerobic, thermophilic enrichment culture from an Icelandic hot spring. <i>Biotechnology and Bioengineering</i> , <b>2008</b> , 101, 665-78	4.9	51
57	Fermentative biohydrogen production and its byproducts: A mini review of current technology developments. <i>Renewable and Sustainable Energy Reviews</i> , <b>2018</b> , 82, 4215-4220	16.2	47

56	Power generation in fed-batch and continuous up-flow microbial fuel cell from synthetic wastewater. <i>Energy</i> , <b>2015</b> , 91, 235-241	7.9	45
55	Co-fermentation of water hyacinth and beverage wastewater in powder and pellet form for hydrogen production. <i>Bioresource Technology</i> , <b>2013</b> , 135, 610-5	11	45
54	Performance and population analysis of hydrogen production from sugarcane juice by non-sterile continuous stirred tank reactor augmented with <i>Clostridium butyricum</i> . <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 8697-8703	6.7	45
53	Simultaneous hydrogen and ethanol production from sweet potato via dark fermentation. <i>Journal of Cleaner Production</i> , <b>2012</b> , 27, 155-164	10.3	44
52	Bioprospecting Thermophilic Microorganisms from Icelandic Hot Springs for Hydrogen and Ethanol Production <i>Energy &amp; Fuels</i> , <b>2008</b> , 22, 134-140	4.1	44
51	Direct fermentation of sweet potato to produce maximal hydrogen and ethanol. <i>Applied Energy</i> , <b>2012</b> , 100, 10-18	10.7	42
50	Pilot-scale hydrogen fermentation system start-up performance. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 13452-13457	6.7	39
49	Electricity generation from swine wastewater in microbial fuel cell: Hydraulic reaction time effect. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 21820-21826	6.7	39
48	Starch-containing textile wastewater treatment for biogas and microalgae biomass production. <i>Journal of Cleaner Production</i> , <b>2017</b> , 168, 331-337	10.3	38
47	Fermentative biohydrogen production from starch-containing textile wastewater. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 2050-2057	6.7	38
46	Bioelectricity generation using microalgal biomass as electron donor in a bio-anode microbial fuel cell. <i>Bioresource Technology</i> , <b>2018</b> , 270, 286-293	11	33
45	Anaerobic hydrogen and methane production from low-strength beverage wastewater. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 14351-14361	6.7	31
44	Recent advanced biotechnological strategies to enhance photo-fermentative biohydrogen production by purple non-sulphur bacteria: An overview. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 13211-13230	6.7	31
43	Sustainable bioenergy production from tofu-processing wastewater by anaerobic hydrogen fermentation for onsite energy recovery. <i>Renewable Energy</i> , <b>2013</b> , 58, 60-67	8.1	31
42	Optimizing biohydrogen production from mushroom cultivation waste using anaerobic mixed cultures. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 16473-16478	6.7	30
41	Seed inocula for biohydrogen production from biodiesel solid residues. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 15489-15495	6.7	29
40	A critical review on global trends in biogas scenario with its up-gradation techniques for fuel cell and future perspectives. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 16734-16750	6.7	27
39	Enhancement of fermentative biohydrogen production from textile desizing wastewater via coagulation-pretreatment. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 12153-12158	6.7	26

38	Co-substrate strategy for improved power production and chlorophenol degradation in a microbial fuel cell. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 20312-20322	6.7	25
37	Optimization of Hydrolysis-Acidogenesis Phase of Swine Manure for Biogas Production Using Two-Stage Anaerobic Fermentation. <i>Processes</i> , <b>2021</b> , 9, 1324	2.9	25
36	Microalgae cultivation using biogas and digestate carbon sources. <i>Biomass and Bioenergy</i> , <b>2019</b> , 122, 426-432	5.3	23
35	Effect of effluent recycle ratio in a continuous anaerobic biohydrogen production system. <i>Journal of Cleaner Production</i> , <b>2012</b> , 32, 236-243	10.3	23
34	Fermentative bioenergy production from distillers grains using mixed microflora. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 15547-15555	6.7	21
33	Effects of hydraulic retention time on biohythane production via single-stage anaerobic fermentation in a two-compartment bioreactor. <i>Bioresource Technology</i> , <b>2019</b> , 292, 121869	11	19
32	Bioelectricity production on xylose with a compost enrichment culture. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 15606-15612	6.7	19
31	Effect of hydraulic retention time on continuous electricity production from xylose in up-flow microbial fuel cell. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 27494-27501	6.7	16
30	Biohydrogen production in an anaerobic baffled stacking reactor: Recirculation strategy and substrate concentration effects. <i>Biochemical Engineering Journal</i> , <b>2016</b> , 109, 59-64	4.2	16
29	Recent trends and prospects in biohythane research: An overview. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 5864-5873	6.7	16
28	Enhancement of anaerobic biohydrogen/methane production from cellulose using heat-treated activated sludge. <i>Water Science and Technology</i> , <b>2011</b> , 63, 1849-54	2.2	15
27	Continuous biohydrogen production from coagulation-pretreated textile desizing wastewater. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 29159-29165	6.7	14
26	Characterization of Hemp ( <i>Cannabis sativa</i> L.) Biodiesel Blends with Euro Diesel, Butanol and Diethyl Ether Using FT-IR, UV-Vis, TGA and DSC Techniques. <i>Waste and Biomass Valorization</i> , <b>2020</b> , 11, 1097-1113	3.2	14
25	Effect of food to microorganisms (F/M) ratio on biohythane production via single-stage dark fermentation. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 11313-11324	6.7	14
24	Textile wastewater bioremediation using immobilized <i>Chlorella</i> sp. Wu-G23 with continuous culture. <i>Clean Technologies and Environmental Policy</i> , <b>2021</b> , 23, 153-161	4.3	10
23	Anaerobic hydrogen production from unhydrolyzed mushroom farm waste by indigenous microbiota. <i>Journal of Bioscience and Bioengineering</i> , <b>2017</b> , 124, 425-429	3.3	9
22	Biohydrogen Production from Mushroom Cultivation Waste by Anaerobic Solid-state Fermentation. <i>Journal of the Chinese Chemical Society</i> , <b>2016</b> , 63, 199-204	1.5	9
21	Biogas production from beverage factory wastewater in a mobile bioenergy station. <i>Chemosphere</i> , <b>2021</b> , 264, 128564	8.4	9

20	Constructing a cellulosic yeast host with an efficient cellulase cocktail. <i>Biotechnology and Bioengineering</i> , <b>2018</b> , 115, 751-761	4.9	9
19	Biohydrogen Production from Textile Wastewater by Mixed Microflora in an Intermittent-flow, Stirred Tank Reactor: Effect of Feeding Frequency. <i>Journal of the Chinese Chemical Society</i> , <b>2014</b> , 61, 791-796	1.5	8
18	Immobilized Chlorella species mixotrophic cultivation at various textile wastewater concentrations. <i>Journal of Water Process Engineering</i> , <b>2020</b> , 38, 101609	6.7	8
17	Continuous anaerobic hydrogen and methane production using water hyacinth feedstock. <i>Arabian Journal for Science and Engineering</i> , <b>2016</b> , 41, 2563-2571		8
16	Enhanced photocatalytic performance of metal silver and carbon dots co-doped BiOI photocatalysts and mechanism investigation. <i>Environmental Science and Pollution Research</i> , <b>2020</b> , 27, 17516-17529	5.1	8
15	Fermentative Hydrogen and Methane Productions from Organic Wastes: a Review. <i>Current Biochemical Engineering</i> , <b>2015</b> , 3, 16-23	2	7
14	Hydrothermally extraction of saponin from root - Physico-chemical characteristics and antibacterial activity evaluation. <i>Biotechnology Reports (Amsterdam, Netherlands)</i> , <b>2020</b> , 27, e00507	5.3	7
13	Fabrication of ordered mesoporous POMs/SiO-NH nanofibers for production of DFF from 5-HMF for cellulose wastewater resource recovery. <i>Chemosphere</i> , <b>2021</b> , 277, 130316	8.4	6
12	Economic potential of bioremediation using immobilized microalgae-based microbial fuel cells. <i>Clean Technologies and Environmental Policy</i> , <b>2021</b> , 23, 2251-2264	4.3	4
11	Anaerobic fermentative system based scheme for green energy sustainable houses. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 8719-8726	6.7	3
10	Anaerobic Biohydrogen Production Using Rice Husk-Based Biologics. <i>Waste and Biomass Valorization</i> , <b>2020</b> , 11, 1059-1068	3.2	3
9	Sustainable cultivation via waste soybean extract for higher vaccenic acid production by purple non-sulfur bacteria. <i>Clean Technologies and Environmental Policy</i> , <b>2021</b> , 23, 103-112	4.3	3
8	Hygro-Thermo-Mechanical Responses of Balsa Wood Core Sandwich Composite Beam Exposed to Fire. <i>Processes</i> , <b>2020</b> , 8, 103	2.9	2
7	High-Strength Wastewater Treatment Using Anaerobic Processes <b>2017</b> , 321-357		2
6	Exploring the environmental and economic potential for biogas production from swine manure wastewater by life cycle assessment. <i>Clean Technologies and Environmental Policy</i> , <b>2021</b> , 23, 103-112	4.3	2
5	Application of Cold Region Regenerable Biomass in Phosphorus Adsorption in Reclaimed Water. <i>Water (Switzerland)</i> , <b>2019</b> , 11, 1815	3	1
4	Biohydrogen Production Perspectives from Organic Waste with Focus on Asia <b>2019</b> , 413-435		1
3	Research and Development of Biohydrogen Production in Taiwan <b>2010</b> , 331-344		1

2	Comparison of Potential Environmental Impacts and Waste-to-Energy Efficiency for Kitchen Waste Treatment Scenarios in Central Taiwan. <i>Processes</i> , <b>2021</b> , 9, 696	2.9	1
1	Effect of nano zero-valent iron (nZVI) on biohydrogen production in anaerobic fermentation of oil palm frond juice using <i>Clostridium butyricum</i> JKT37. <i>Biomass and Bioenergy</i> , <b>2021</b> , 154, 106270	53	0