

# Jerry D. Murphy

## List of Publications by Year in descending order

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Version: 2024-02-01

261  
papers

15,192  
citations

13068

68  
h-index

27345

106  
g-index

266  
all docs

266  
docs citations

266  
times ranked

10594  
citing authors

#	ARTICLE	IF	CITATIONS
1	Renewable fuels from algae: An answer to debatable land based fuels. <i>Bioresource Technology</i> , 2011, 102, 10-16.	4.8	560
2	Mechanism and challenges in commercialisation of algal biofuels. <i>Bioresource Technology</i> , 2011, 102, 26-34.	4.8	410
3	Key issues in life cycle assessment of ethanol production from lignocellulosic biomass: Challenges and perspectives. <i>Bioresource Technology</i> , 2010, 101, 5003-5012.	4.8	363
4	Microalgal Cultivation in Treating Liquid Digestate from Biogas Systems. <i>Trends in Biotechnology</i> , 2016, 34, 264-275.	4.9	302
5	Boosting biomethane yield and production rate with graphene: The potential of direct interspecies electron transfer in anaerobic digestion. <i>Bioresource Technology</i> , 2017, 239, 345-352.	4.8	272
6	Technical, economic and environmental analysis of energy production from municipal solid waste. <i>Renewable Energy</i> , 2004, 29, 1043-1057.	4.3	263
7	Biofuel policy in India: A review of policy barriers in sustainable marketing of biofuel. <i>Journal of Cleaner Production</i> , 2018, 193, 734-747.	4.6	229
8	Review of the Integrated Process for the Production of Grass Biomethane. <i>Environmental Science &amp; Technology</i> , 2009, 43, 8496-8508.	4.6	226
9	A critical review on anaerobic digestion of microalgae and macroalgae and co-digestion of biomass for enhanced methane generation. <i>Bioresource Technology</i> , 2018, 262, 319-332.	4.8	214
10	Assessment of the resource associated with biomethane from food waste. <i>Applied Energy</i> , 2013, 104, 170-177.	5.1	212
11	Decarbonising ships, planes and trucks: An analysis of suitable low-carbon fuels for the maritime, aviation and haulage sectors. <i>Advances in Applied Energy</i> , 2021, 1, 100008.	6.6	200
12	Technical/economic/environmental analysis of biogas utilisation. <i>Applied Energy</i> , 2004, 77, 407-427.	5.1	194
13	Innovation in biological production and upgrading of methane and hydrogen for use as gaseous transport biofuel. <i>Biotechnology Advances</i> , 2016, 34, 451-472.	6.0	178
14	A critical review of organic manure biorefinery models toward sustainable circular bioeconomy: Technological challenges, advancements, innovations, and future perspectives. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 111, 115-131.	8.2	177
15	Effect of thermal, chemical and thermo-chemical pre-treatments to enhance methane production. <i>Energy</i> , 2010, 35, 4556-4561.	4.5	171
16	Improved efficiency of anaerobic digestion through direct interspecies electron transfer at mesophilic and thermophilic temperature ranges. <i>Chemical Engineering Journal</i> , 2018, 350, 681-691.	6.6	168
17	Production of hydrogen, ethanol and volatile fatty acids through co-fermentation of macro- and micro-algae. <i>Bioresource Technology</i> , 2016, 205, 118-125.	4.8	167
18	What is the energy balance of grass biomethane in Ireland and other temperate northern European climates?. <i>Renewable and Sustainable Energy Reviews</i> , 2009, 13, 2349-2360.	8.2	166

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19	Enhanced dark hydrogen fermentation by addition of ferric oxide nanoparticles using <i>Enterobacter aerogenes</i> . <i>Bioresource Technology</i> , 2016, 207, 213-219.	4.8	162
20	Renewable biohydrogen production from lignocellulosic biomass using fermentation and integration of systems with other energy generation technologies. <i>Science of the Total Environment</i> , 2021, 765, 144429.	3.9	159
21	How can we improve biomethane production per unit of feedstock in biogas plants?. <i>Applied Energy</i> , 2011, 88, 2013-2018.	5.1	153
22	Influence of temperature and reaction time on the conversion of polystyrene waste to pyrolysis liquid oil. <i>Waste Management</i> , 2016, 58, 250-259.	3.7	148
23	Techno-economic analysis of biogas upgrading via amine scrubber, carbon capture and ex-situ methanation. <i>Applied Energy</i> , 2018, 212, 1191-1202.	5.1	140
24	An argument for using biomethane generated from grass as a biofuel in Ireland. <i>Biomass and Bioenergy</i> , 2009, 33, 504-512.	2.9	127
25	Improving hydrogen and methane co-generation in cascading dark fermentation and anaerobic digestion: The effect of magnetite nanoparticles on microbial electron transfer and syntrophism. <i>Chemical Engineering Journal</i> , 2020, 397, 125394.	6.6	123
26	What type of digester configurations should be employed to produce biomethane from grass silage?. <i>Renewable and Sustainable Energy Reviews</i> , 2010, 14, 1558-1568.	8.2	121
27	Advanced biohydrogen production using pretreated industrial waste: Outlook and prospects. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 96, 306-324.	8.2	119
28	Is it better to import palm oil from Thailand to produce biodiesel in Ireland than to produce biodiesel from indigenous Irish rape seed?. <i>Applied Energy</i> , 2009, 86, 595-604.	5.1	117
29	Fermentative hydrogen production using algal biomass as feedstock. <i>Renewable and Sustainable Energy Reviews</i> , 2015, 51, 209-230.	8.2	115
30	Biological methanation: Strategies for in-situ and ex-situ upgrading in anaerobic digestion. <i>Applied Energy</i> , 2019, 235, 1061-1071.	5.1	115
31	Life-cycle assessment of biofuel production from microalgae via various bioenergy conversion systems. <i>Energy</i> , 2019, 171, 1033-1045.	4.5	114
32	A biofuel strategy for Ireland with an emphasis on production of biomethane and minimization of land-take. <i>Renewable and Sustainable Energy Reviews</i> , 2010, 14, 277-288.	8.2	111
33	Is grass biomethane a sustainable transport biofuel?. <i>Biofuels, Bioproducts and Biorefining</i> , 2010, 4, 310-325.	1.9	109
34	A perspective on the potential role of renewable gas in a smart energy island system. <i>Renewable Energy</i> , 2015, 78, 648-656.	4.3	108
35	Recent advances and challenges of inter-disciplinary biomass valorization by integrating hydrothermal and biological techniques. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 135, 110370.	8.2	108
36	Advancing anaerobic digestion through two-stage processes: Current developments and future trends. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 123, 109746.	8.2	102

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37	A comparative study between single- and two-stage anaerobic digestion processes: Effects of organic loading rate and hydraulic retention time. <i>International Biodeterioration and Biodegradation</i> , 2014, 95, 181-188.	1.9	100
38	What is the gross energy yield of third generation gaseous biofuel sourced from seaweed?. <i>Energy</i> , 2015, 81, 352-360.	4.5	100
39	Ensilaging of seaweed for a seaweed biofuel industry. <i>Bioresource Technology</i> , 2015, 196, 301-313.	4.8	100
40	The potential of algae blooms to produce renewable gaseous fuel. <i>Waste Management</i> , 2013, 33, 2425-2433.	3.7	96
41	Comparison in dark hydrogen fermentation followed by photo hydrogen fermentation and methanogenesis between protein and carbohydrate compositions in <i>Nannochloropsis oceanica</i> biomass. <i>Bioresource Technology</i> , 2013, 138, 204-213.	4.8	94
42	Hydrogen from offshore wind: Investor perspective on the profitability of a hybrid system including for curtailment. <i>Applied Energy</i> , 2020, 265, 114732.	5.1	94
43	Assessment of increasing loading rate on two-stage digestion of food waste. <i>Bioresource Technology</i> , 2016, 202, 172-180.	4.8	93
44	Assessing the cost of biofuel production with increasing penetration of the transport fuel market: A case study of gaseous biomethane in Ireland. <i>Renewable and Sustainable Energy Reviews</i> , 2011, 15, 4537-4547.	8.2	91
45	Enhancement of energy production efficiency from mixed biomass of <i>Chlorella pyrenoidosa</i> and cassava starch through combined hydrogen fermentation and methanogenesis. <i>Applied Energy</i> , 2014, 120, 23-30.	5.1	91
46	Laccase pretreatment of wheat straw: effects of the physicochemical characteristics and the kinetics of enzymatic hydrolysis. <i>Biotechnology for Biofuels</i> , 2019, 12, 159.	6.2	90
47	Inhibitory effects of furan derivatives and phenolic compounds on dark hydrogen fermentation. <i>Bioresource Technology</i> , 2015, 196, 250-255.	4.8	89
48	Co-generation of biohydrogen and biomethane through two-stage batch co-fermentation of macro- and micro-algal biomass. <i>Bioresource Technology</i> , 2016, 218, 224-231.	4.8	88
49	The optimal production of biogas for use as a transport fuel in Ireland. <i>Renewable Energy</i> , 2005, 30, 2111-2127.	4.3	87
50	Technical and economic analysis of biogas production in Ireland utilising three different crop rotations. <i>Applied Energy</i> , 2009, 86, 25-36.	5.1	87
51	The potential for biomethane from grass and slurry to satisfy renewable energy targets. <i>Bioresource Technology</i> , 2013, 149, 425-431.	4.8	87
52	Fermentative biohydrogen and biomethane co-production from mixture of food waste and sewage sludge: Effects of physicochemical properties and mix ratios on fermentation performance. <i>Applied Energy</i> , 2016, 184, 1-8.	5.1	87
53	Ethanol production from energy crops and wastes for use as a transport fuel in Ireland. <i>Applied Energy</i> , 2005, 82, 148-166.	5.1	86
54	Modelling of a power-to-gas system to predict the levelised cost of energy of an advanced renewable gaseous transport fuel. <i>Applied Energy</i> , 2018, 215, 444-456.	5.1	85

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55	Potential of seaweed as a feedstock for renewable gaseous fuel production in Ireland. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 68, 136-146.	8.2	84
56	Optimised biogas production from microalgae through co-digestion with carbon-rich co-substrates. <i>Bioresource Technology</i> , 2016, 214, 328-337.	4.8	83
57	Assessing the variability in biomethane production from the organic fraction of municipal solid waste in batch and continuous operation. <i>Applied Energy</i> , 2014, 128, 307-314.	5.1	82
58	Improving gaseous biofuel yield from seaweed through a cascading circular bioenergy system integrating anaerobic digestion and pyrolysis. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 128, 109895.	8.2	80
59	A review on the biomass pretreatment and inhibitor removal methods as key-steps towards efficient macroalgae-based biohydrogen production. <i>Bioresource Technology</i> , 2017, 244, 1341-1348.	4.8	79
60	Experimental and economical evaluation of bioconversion of forest residues to biogas using organosolv pretreatment. <i>Bioresource Technology</i> , 2015, 178, 201-208.	4.8	78
61	Improving gaseous biofuel production from seaweed <i>Saccharina latissima</i> : The effect of hydrothermal pretreatment on energy efficiency. <i>Energy Conversion and Management</i> , 2019, 196, 1385-1394.	4.4	78
62	Techno-economics and life-cycle assessment of biological and thermochemical treatment of bio-waste. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 144, 110837.	8.2	77
63	Why does mono-digestion of grass silage fail in long term operation?. <i>Applied Energy</i> , 2012, 95, 64-76.	5.1	76
64	The role of machine learning to boost the bioenergy and biofuels conversion. <i>Bioresource Technology</i> , 2022, 343, 126099.	4.8	76
65	How much gas can we get from grass?. <i>Applied Energy</i> , 2012, 92, 783-790.	5.1	75
66	Life-cycle assessment of biohythane production via two-stage anaerobic fermentation from microalgae and food waste. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 112, 395-410.	8.2	75
67	How can we improve the energy balance of ethanol production from wheat?. <i>Fuel</i> , 2008, 87, 1799-1806.	3.4	74
68	Biological hydrogen methanation systems – an overview of design and efficiency. <i>Bioengineered</i> , 2019, 10, 604-634.	1.4	74
69	Improvement of the energy conversion efficiency of <i>Chlorella pyrenoidosa</i> biomass by a three-stage process comprising dark fermentation, photofermentation, and methanogenesis. <i>Bioresource Technology</i> , 2013, 146, 436-443.	4.8	73
70	Study of the performance of a thermophilic biological methanation system. <i>Bioresource Technology</i> , 2017, 225, 308-315.	4.8	69
71	Can we meet targets for biofuels and renewable energy in transport given the constraints imposed by policy in agriculture and energy?. <i>Journal of Cleaner Production</i> , 2010, 18, 1671-1685.	4.6	68
72	Role of trace elements in single and two-stage digestion of food waste at high organic loading rates. <i>Energy</i> , 2017, 121, 185-192.	4.5	68

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73	Improving production of volatile fatty acids and hydrogen from microalgae and rice residue: Effects of physicochemical characteristics and mix ratios. <i>Applied Energy</i> , 2018, 230, 1082-1092.	5.1	68
74	Improving hydrolysis of food waste in a leach bed reactor. <i>Waste Management</i> , 2013, 33, 2470-2477.	3.7	64
75	Uncertainty over techno-economic potentials of biogas from municipal solid waste (MSW): A case study on an industrial process. <i>Applied Energy</i> , 2014, 125, 84-92.	5.1	64
76	Grass for biogas production: The impact of silage fermentation characteristics on methane yield in two contrasting biomethane potential test systems. <i>Renewable Energy</i> , 2014, 63, 524-530.	4.3	64
77	Cascading biomethane energy systems for sustainable green gas production in a circular economy. <i>Bioresource Technology</i> , 2017, 243, 1207-1215.	4.8	64
78	Optimizing the Operation of a Two-Phase Anaerobic Digestion System Digesting Grass Silage. <i>Environmental Science &amp; Technology</i> , 2011, 45, 7561-7569.	4.6	63
79	How to optimise photosynthetic biogas upgrading: a perspective on system design and microalgae selection. <i>Biotechnology Advances</i> , 2019, 37, 107444.	6.0	63
80	Life cycle assessment of seaweed biomethane, generated from seaweed sourced from integrated multi-trophic aquaculture in temperate oceanic climates. <i>Applied Energy</i> , 2017, 196, 34-50.	5.1	61
81	Improving fermentative hydrogen and methane production from an algal bloom through hydrothermal/steam acid pretreatment. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 5812-5820.	3.8	60
82	Hydrogen production using amino acids obtained by protein degradation in waste biomass by combined dark- and photo-fermentation. <i>Bioresource Technology</i> , 2015, 179, 13-19.	4.8	59
83	Graphene Facilitates Biomethane Production from Protein-Derived Glycine in Anaerobic Digestion. <i>IScience</i> , 2018, 10, 158-170.	1.9	59
84	Fermentative hydrogen and methane cogeneration from cassava residues: Effect of pretreatment on structural characterization and fermentation performance. <i>Bioresource Technology</i> , 2015, 179, 407-413.	4.8	57
85	Use of surplus wind electricity in Ireland to produce compressed renewable gaseous transport fuel through biological power to gas systems. <i>Renewable Energy</i> , 2017, 105, 495-504.	4.3	56
86	Trace element supplementation is associated with increases in fermenting bacteria in biogas mono-digestion of grass silage. <i>Renewable Energy</i> , 2019, 138, 980-986.	4.3	56
87	Improving biohydrogen and biomethane co-production via two-stage dark fermentation and anaerobic digestion of the pretreated seaweed <i>Laminaria digitata</i> . <i>Journal of Cleaner Production</i> , 2020, 251, 119666.	4.6	56
88	Seasonal variation of chemical composition and biomethane production from the brown seaweed <i>Ascophyllum nodosum</i> . <i>Bioresource Technology</i> , 2016, 216, 219-226.	4.8	55
89	A detailed assessment of resource of biomethane from first, second and third generation substrates. <i>Renewable Energy</i> , 2016, 87, 656-665.	4.3	55
90	Role of Leaching and Hydrolysis in a Two-Phase Grass Digestion System. <i>Energy &amp; Fuels</i> , 2010, 24, 4549-4559.	2.5	54

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91	Production of hydrogen, ethanol and volatile fatty acids from the seaweed carbohydrate mannitol. <i>Bioresource Technology</i> , 2015, 193, 488-497.	4.8	54
92	Fermentative bio-hydrogen production from galactose. <i>Energy</i> , 2016, 96, 346-354.	4.5	54
93	Assessing the total theoretical, and financially viable, resource of biomethane for injection to a natural gas network in a region. <i>Applied Energy</i> , 2017, 188, 237-256.	5.1	54
94	Can grass biomethane be an economically viable biofuel for the farmer and the consumer?. <i>Biofuels, Bioproducts and Biorefining</i> , 2010, 4, 519-537.	1.9	53
95	Simultaneous enhancement of <i>Chlorella vulgaris</i> growth and lipid accumulation through the synergy effect between light and nitrate in a planar waveguide flat-plate photobioreactor. <i>Bioresource Technology</i> , 2017, 243, 528-538.	4.8	53
96	Can Rape Seed Biodiesel Meet the European Union Sustainability Criteria for Biofuels?. <i>Energy &amp; Fuels</i> , 2010, 24, 1720-1730.	2.5	52
97	Investigation of the optimal percentage of green seaweed that may be co-digested with dairy slurry to produce gaseous biofuel. <i>Bioresource Technology</i> , 2014, 170, 436-444.	4.8	52
98	Subcritical water hydrolysis of rice straw for reducing sugar production with focus on degradation by-products and kinetic analysis. <i>Bioresource Technology</i> , 2015, 186, 8-14.	4.8	52
99	Comparison between heterofermentation and autofermentation in hydrogen production from <i>Arthrospira (Spirulina) platensis</i> wet biomass. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 6536-6544.	3.8	51
100	Optimisation of digester performance with increasing organic loading rate for mono- and co-digestion of grass silage and dairy slurry. <i>Bioresource Technology</i> , 2014, 173, 422-428.	4.8	51
101	The effect of trace element addition to mono-digestion of grass silage at high organic loading rates. <i>Bioresource Technology</i> , 2014, 172, 349-355.	4.8	51
102	Physicochemical characterization of typical municipal solid wastes for fermentative hydrogen and methane co-production. <i>Energy Conversion and Management</i> , 2016, 117, 297-304.	4.4	51
103	A Technical, Economic and Environmental Comparison of Composting and Anaerobic Digestion of Biodegradable Municipal Waste. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2006, 41, 865-879.	0.9	50
104	Modelling mono-digestion of grass silage in a 2-stage CSTR anaerobic digester using ADM1. <i>Bioresource Technology</i> , 2011, 102, 948-959.	4.8	49
105	A perspective on novel cascading algal biomethane biorefinery systems. <i>Bioresource Technology</i> , 2020, 304, 123027.	4.8	49
106	Effects of carbon cloth on anaerobic digestion of high concentration organic wastewater under various mixing conditions. <i>Journal of Hazardous Materials</i> , 2022, 423, 127100.	6.5	49
107	Determining the regional potential for a grass biomethane industry. <i>Applied Energy</i> , 2011, 88, 2037-2049.	5.1	48
108	Cogeneration of hydrogen and methane from <i>Arthrospira maxima</i> biomass with bacteria domestication and enzymatic hydrolysis. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 1474-1481.	3.8	48

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109	Biodegradable branched cationic starch with high C/N ratio for <i>Chlorella vulgaris</i> cells concentration: Regulating microalgae flocculation performance by pH. <i>Bioresource Technology</i> , 2019, 276, 133-139.	4.8	48
110	Effects of foam nickel supplementation on anaerobic digestion: Direct interspecies electron transfer. <i>Journal of Hazardous Materials</i> , 2020, 399, 122830.	6.5	48
111	Dedicated large-scale floating offshore wind to hydrogen: Assessing design variables in proposed typologies. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 160, 112310.	8.2	48
112	An annular photobioreactor with ion-exchange-membrane for non-touch microalgae cultivation with wastewater. <i>Bioresource Technology</i> , 2016, 219, 668-676.	4.8	46
113	A lifecycle financial analysis model for offshore wind farms. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 103, 370-383.	8.2	46
114	The benefits of integrated treatment of wastes for the production of energy. <i>Energy</i> , 2006, 31, 294-310.	4.5	45
115	A roadmap for the introduction of gaseous transport fuel: A case study for renewable natural gas in Ireland. <i>Renewable and Sustainable Energy Reviews</i> , 2011, 15, 4642-4651.	8.2	45
116	How can ethanol enhance direct interspecies electron transfer in anaerobic digestion?. <i>Biotechnology Advances</i> , 2021, 52, 107812.	6.0	45
117	Difficulties Associated with Monodigestion of Grass as Exemplified by Commissioning a Pilot-Scale Digester. <i>Energy &amp; Fuels</i> , 2010, 24, 4459-4469.	2.5	44
118	Beyond carbon and energy: The challenge in setting guidelines for life cycle assessment of biofuel systems. <i>Renewable Energy</i> , 2017, 105, 436-448.	4.3	44
119	Inhibition of thermochemical treatment on biological hydrogen and methane co-production from algae-derived glucose/glycine. <i>Energy Conversion and Management</i> , 2018, 158, 201-209.	4.4	44
120	An economic and carbon analysis of biomethane production from food waste to be used as a transport fuel in Mexico. <i>Journal of Cleaner Production</i> , 2018, 196, 852-862.	4.6	44
121	Graphene Addition to Digestion of Thin Stillage Can Alleviate Acidic Shock and Improve Biomethane Production. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 13248-13260.	3.2	44
122	How do we optimize third-generation algal biofuels?. <i>Biofuels, Bioproducts and Biorefining</i> , 2015, 9, 358-367.	1.9	43
123	The effect of seasonal variation on biomethane production from seaweed and on application as a gaseous transport biofuel. <i>Bioresource Technology</i> , 2016, 209, 213-219.	4.8	43
124	Can acid pre-treatment enhance biohydrogen and biomethane production from grass silage in single-stage and two-stage fermentation processes?. <i>Energy Conversion and Management</i> , 2019, 195, 738-747.	4.4	42
125	Using biogas to reduce natural gas consumption and greenhouse gas emissions at a large distillery. <i>Applied Energy</i> , 2020, 279, 115812.	5.1	42
126	The impact of increasing organic loading in two phase digestion of food waste. <i>Renewable Energy</i> , 2014, 71, 69-76.	4.3	40



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127	Enhancement of CO <sub>2</sub> transfer and microalgae growth by perforated inverted arc trough internals in a flat-plate photobioreactor. <i>Bioresource Technology</i> , 2018, 269, 292-299.	4.8	40
128	Can power to methane systems be sustainable and can they improve the carbon intensity of renewable methane when used to upgrade biogas produced from grass and slurry?. <i>Applied Energy</i> , 2018, 228, 1046-1056.	5.1	40
129	A critical review of the applicability of biodiesel and grass biomethane as biofuels to satisfy both biofuel targets and sustainability criteria. <i>Applied Energy</i> , 2011, 88, 1008-1019.	5.1	39
130	The Effect of Effluent Recirculation in a Semi-Continuous Two-Stage Anaerobic Digestion System. <i>Energies</i> , 2013, 6, 2966-2981.	1.6	39
131	Effect of solids loading on ethanol production: Experimental, economic and environmental analysis. <i>Bioresource Technology</i> , 2017, 244, 108-116.	4.8	39
132	What physicochemical properties of biochar facilitate interspecies electron transfer in anaerobic digestion: A case study of digestion of whiskey by-products. <i>Fuel</i> , 2021, 306, 121736.	3.4	39
133	Investigation of effect of particle size and rumen fluid addition on specific methane yields of high lignocellulose grass silage. <i>Bioresource Technology</i> , 2015, 192, 266-271.	4.8	38
134	Low concentrations of furfural facilitate biohydrogen production in dark fermentation using <i>Enterobacter aerogenes</i> . <i>Renewable Energy</i> , 2020, 150, 23-30.	4.3	38
135	Which is the preferable transport fuel on a greenhouse gas basis; biomethane or ethanol?. <i>Biomass and Bioenergy</i> , 2009, 33, 1403-1412.	2.9	37
136	Carbon cloth facilitates semi-continuous anaerobic digestion of organic wastewater rich in volatile fatty acids from dark fermentation. <i>Environmental Pollution</i> , 2021, 272, 116030.	3.7	37
137	Production of Bio-alkanes from Biomass and CO <sub>2</sub> . <i>Trends in Biotechnology</i> , 2021, 39, 370-380.	4.9	37
138	Effects of pre-treatment and biological acidification on fermentative hydrogen and methane co-production. <i>Energy Conversion and Management</i> , 2019, 185, 431-441.	4.4	36
139	The impact of the life cycle analysis methodology on whether biodiesel produced from residues can meet the EU sustainability criteria for biofuel facilities constructed after 2017. <i>Renewable Energy</i> , 2011, 36, 50-63.	4.3	35
140	Sequential generation of hydrogen and methane from glutamic acid through combined photo-fermentation and methanogenesis. <i>Bioresource Technology</i> , 2013, 131, 146-151.	4.8	35
141	Evaluation of the biomethane potential from multiple waste streams for a proposed community scale anaerobic digester. <i>Environmental Technology (United Kingdom)</i> , 2013, 34, 2027-2038.	1.2	35
142	The effect of electricity markets, and renewable electricity penetration, on the levelised cost of energy of an advanced electro-fuel system incorporating carbon capture and utilisation. <i>Renewable Energy</i> , 2019, 131, 364-371.	4.3	35
143	Preparation of nano-biochar from conventional biorefineries for high-value applications. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 157, 112057.	8.2	35
144	The effect of reactor design on the sustainability of grass biomethane. <i>Renewable and Sustainable Energy Reviews</i> , 2011, 15, 1567-1574.	8.2	34

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145	Optimizing the thermophilic hydrolysis of grass silage in a two-phase anaerobic digestion system. <i>Bioresource Technology</i> , 2013, 143, 117-125.	4.8	34
146	Sustainability assessment of large-scale storage technologies for surplus electricity using group multi-criteria decision analysis. <i>Clean Technologies and Environmental Policy</i> , 2017, 19, 689-703.	2.1	34
147	A technical, economic, and environmental analysis of energy production from newspaper in Ireland. <i>Waste Management</i> , 2007, 27, 177-192.	3.7	33
148	Production of advanced fuels through integration of biological, thermo-chemical and power to gas technologies in a circular cascading bio-based system. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 135, 110371.	8.2	33
149	Methanosarcina Play an Important Role in Anaerobic Co-Digestion of the Seaweed <i>Ulva lactuca</i> : Taxonomy and Predicted Metabolism of Functional Microbial Communities. <i>PLoS ONE</i> , 2015, 10, e0142603.	1.1	33
150	How much of the target for biofuels can be met by biodiesel generated from residues in Ireland?. <i>Fuel</i> , 2010, 89, 3579-3589.	3.4	32
151	A perspective on gaseous biofuel production from micro-algae generated from CO <sub>2</sub> from a coal-fired power plant. <i>Applied Energy</i> , 2015, 148, 396-402.	5.1	32
152	Biogas production generated through continuous digestion of natural and cultivated seaweeds with dairy slurry. <i>Bioresource Technology</i> , 2016, 219, 228-238.	4.8	32
153	Assessment of continuous fermentative hydrogen and methane co-production using macro- and micro-algae with increasing organic loading rate. <i>Energy</i> , 2018, 151, 760-770.	4.5	32
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