

David M Lewis

List of Publications by Year in descending order

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Version: 2024-02-01

59
papers

2,880
citations

236612

25
h-index

174990

52
g-index

61
all docs

61
docs citations

61
times ranked

3742
citing authors

#	ARTICLE	IF	CITATIONS
1	Anaerobic digestion of algae biomass: A review. <i>Algal Research</i> , 2014, 5, 204-214.	2.4	463
2	Disruption of microalgal cells for the extraction of lipids for biofuels: Processes and specific energy requirements. <i>Biomass and Bioenergy</i> , 2012, 46, 89-101.	2.9	359
3	Microbial flocculation, a potentially low-cost harvesting technique for marine microalgae for the production of biodiesel. <i>Journal of Applied Phycology</i> , 2009, 21, 559-567.	1.5	238
4	Discriminating and assessing adsorption and biodegradation removal mechanisms during granular activated carbon filtration of microcystin toxins. <i>Water Research</i> , 2007, 41, 4262-4270.	5.3	150
5	Estimating the cost of desalination plants using a cost database. <i>Desalination</i> , 2008, 229, 10-20.	4.0	150
6	Harvesting of marine microalgae by electroflocculation: The energetics, plant design, and economics. <i>Applied Energy</i> , 2013, 108, 45-53.	5.1	112
7	Hydrothermal liquefaction of microalgae for biocrude production: Improving the biocrude properties with vacuum distillation. <i>Bioresource Technology</i> , 2014, 174, 212-221.	4.8	84
8	Biofilm establishment and heavy metal removal capacity of an indigenous mining algal-microbial consortium in a photo-rotating biological contactor. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2012, 39, 1321-1331.	1.4	72
9	Force and energy requirement for microalgal cell disruption: An atomic force microscope evaluation. <i>Bioresource Technology</i> , 2013, 128, 199-206.	4.8	67
10	Energy requirements and economic analysis of a full-scale microbial flocculation system for microalgal harvesting. <i>Chemical Engineering Research and Design</i> , 2010, 88, 988-996.	2.7	64
11	A matter of detail: Assessing the true potential of microalgal biofuels. <i>Biotechnology and Bioengineering</i> , 2013, 110, 2317-2322.	1.7	58
12	Release of Cl, S, P, K, and Na during Thermal Conversion of Algal Biomass. <i>Energy & Fuels</i> , 2015, 29, 2542-2554.	2.5	58
13	Hydrothermal liquefaction of freshwater and marine algal biomass: A novel approach to produce distillate fuel fractions through blending and co-processing of biocrude with petrocrude. <i>Bioresource Technology</i> , 2016, 203, 228-235.	4.8	56
14	Harvesting, Thickening and Dewatering Microalgae Biomass. , 2013, , 165-185.		54
15	Microalgal biomass for bioethanol fermentation: Implications for hypersaline systems with an industrial focus. <i>Biomass and Bioenergy</i> , 2012, 46, 79-88.	2.9	52
16	Technical issues in the large-scale hydrothermal liquefaction of microalgal biomass to biocrude. <i>Current Opinion in Biotechnology</i> , 2016, 38, 85-89.	3.3	50
17	Reaction kinetics and characterisation of species in renewable crude from hydrothermal liquefaction of monomers to represent organic fractions of biomass feedstocks. <i>Chemical Engineering Journal</i> , 2020, 389, 124397.	6.6	47
18	Microalgal cell disruption by hydrodynamic cavitation for the production of biofuels. <i>Journal of Applied Phycology</i> , 2015, 27, 1881-1889.	1.5	44

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19	The elucidation of reaction kinetics for hydrothermal liquefaction of model macromolecules. <i>Chemical Engineering Journal</i> , 2019, 370, 637-645.	6.6	44
20	Combustion Behavior of Algal Biomass: Carbon Release, Nitrogen Release, and Char Reactivity. <i>Energy & Fuels</i> , 2014, 28, 41-51.	2.5	43
21	Heterotrophic growth and nutritional aspects of the diatom <i>Cyclotella cryptica</i> (Bacillariophyceae): Effect of some environmental factors. <i>Journal of Bioscience and Bioengineering</i> , 2010, 109, 235-239.	1.1	42
22	Spinifex biogeochemical expressions of buried gold mineralisation: The great mineral exploration penetrator of transported regolith. <i>Applied Geochemistry</i> , 2008, 23, 76-84.	1.4	41
23	Microalgae digestate effluent as a growth medium for <i>Tetraselmis</i> sp. in the production of biofuels. <i>Bioresource Technology</i> , 2014, 167, 81-86.	4.8	37
24	The simulation of an Australian reservoir using a phytoplankton community model: protech. <i>Ecological Modelling</i> , 2002, 150, 107-116.	1.2	33
25	Growth dynamics and the proximate biochemical composition and fatty acid profile of the heterotrophically grown diatom <i>Cyclotella cryptica</i> . <i>Journal of Applied Phycology</i> , 2010, 22, 165-171.	1.5	33
26	Algal Biomass: Occurrence of the Main Inorganic Elements and Simulation of Ash Interactions with Bed Material. <i>Energy & Fuels</i> , 2014, 28, 4622-4632.	2.5	30
27	Reaction Kinetics and Characterization of Species in Renewable Crude from Hydrothermal Liquefaction of Mixtures of Polymer Compounds To Represent Organic Fractions of Biomass Feedstocks. <i>Energy & Fuels</i> , 2020, 34, 419-429.	2.5	26
28	A kinetic model for the hydrothermal liquefaction of microalgae, sewage sludge and pine wood with product characterisation of renewable crude. <i>Chemical Engineering Journal</i> , 2022, 428, 131228.	6.6	24
29	Heterotrophic growth and nutritional aspects of the diatom <i>Cyclotella cryptica</i> (Bacillariophyceae): effect of nitrogen source and concentration. <i>Journal of Applied Phycology</i> , 2012, 24, 301-307.	1.5	23
30	Determination of soluble aluminium concentration in alkaline humic water using atomic absorption spectrophotometry. <i>Water Research</i> , 2004, 38, 4039-4044.	5.3	22
31	Mathematical modelling of a hydrocracking reactor for triglyceride conversion to biofuel: model establishment and validation. <i>International Journal of Energy Research</i> , 2014, 38, 1624-1634.	2.2	22
32	The application of activated carbon for the treatment and reuse of the aqueous phase derived from the hydrothermal liquefaction of a halophytic <i>Tetraselmis</i> sp.. <i>Bioresource Technology</i> , 2015, 182, 378-382.	4.8	20
33	Biogeochemical expression of buried gold mineralization in semi-arid northern Australia: penetration of transported cover at the Titania Gold Prospect, Tanami Desert, Australia. <i>Geochemistry: Exploration, Environment, Analysis</i> , 2009, 9, 267-273.	0.5	18
34	Biosorption of heavy metals in a photo-rotating biological contactor—a batch process study. <i>Applied Microbiology and Biotechnology</i> , 2013, 97, 5113-5123.	1.7	18
35	Integrating anaerobic digestion and hydrothermal liquefaction for renewable energy production: An experimental investigation. <i>Environmental Progress and Sustainable Energy</i> , 2015, 34, 1662-1673.	1.3	18
36	Ecobiological aspects of algae cultivation in wastewaters for recycling of nutrients and biofuel applications. <i>Biofuels</i> , 2014, 5, 141-158.	1.4	17

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37	Elemental nitrogen balance, reaction kinetics and the effect of ethanol on the hydrothermal liquefaction of soy protein. <i>Chemical Engineering Journal</i> , 2021, 425, 130576.	6.6	16
38	The influences of the recycle process on the bacterial community in a pilot scale microalgae raceway pond. <i>Bioresource Technology</i> , 2014, 157, 364-367.	4.8	15
39	Numerical models for management of <i>Anabaena circinalis</i> . <i>Journal of Applied Phycology</i> , 2004, 16, 457-468.	1.5	14
40	Pre-treatment options for halophytic microalgae and associated methane production. <i>Bioresource Technology</i> , 2015, 177, 410-413.	4.8	14
41	Interannual variability in rainfall and its impact on nutrient load and phytoplankton in Myponga Reservoir, South Australia. <i>International Journal of River Basin Management</i> , 2004, 2, 169-179.	1.5	12
42	The effect of ethanol as a homogeneous catalyst on the reaction kinetics of hydrothermal liquefaction of lipids. <i>Chemical Engineering Journal</i> , 2021, 414, 128832.	6.6	12
43	Modelling the effects of artificial mixing and copper sulphate dosing on phytoplankton in an Australian reservoir. <i>Lakes and Reservoirs: Research and Management</i> , 2003, 8, 31-40.	0.6	11
44	Assessment of coagulated and non-coagulated ASB performance used to treat <i>Pinus radiata</i> sulfite pulp and paper mill effluent by resin fractionation and HPSEC techniques. <i>Chemical Engineering Journal</i> , 2012, 213, 109-117.	6.6	11
45	Numerical simulation of hydrothermal liquefaction of algae in a lab-scale coil reactor. <i>Experimental and Computational Multiphase Flow</i> , 2022, 4, 113-120.	1.9	11
46	Synthesising acid mine drainage to maintain and exploit indigenous mining micro-algae and microbial assemblies for biotreatment investigations. <i>Environmental Science and Pollution Research</i> , 2013, 20, 950-956.	2.7	10
47	Halophytic microalgae as a feedstock for anaerobic digestion. <i>Algal Research</i> , 2015, 7, 16-23.	2.4	10
48	Molecular Classification of Commercial <i>Spirulina</i> Strains and Identification of Their Sulfolipid Biosynthesis Genes. <i>Journal of Microbiology and Biotechnology</i> , 2011, 21, 359-365.	0.9	9
49	Utilisation of turbidity as an indicator for biochemical and chemical oxygen demand. <i>Journal of Water Process Engineering</i> , 2014, 4, 137-142.	2.6	8
50	The influence of protozoa with a filtered and non-filtered seawater culture of <i>Tetraselmis</i> sp., and effects to the bacterial and algal communities over 10 days. <i>Bioresource Technology</i> , 2014, 173, 361-366.	4.8	8
51	Study of the impacts of process changes of a pulp and paper mill on aerated stabilization basin (ASB) performance. <i>Chemosphere</i> , 2018, 211, 767-774.	4.2	8
52	Hydro- conversion of oleic acid in bio- oil to liquid hydrocarbons: an experimental and modeling investigation. <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 655-663.	1.6	4
53	<i>Moringa oleifera</i> functionalised sand " reuse with non-ionic surfactant dodecyl glucoside. <i>Journal of Water and Health</i> , 2017, 15, 863-872.	1.1	4
54	Viscosity Variation of Model Compounds during Hydrothermal Liquefaction under Subcritical Conditions of Water. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 980-989.	1.8	4

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55	A multi-component reaction kinetics model for the hydrothermal liquefaction of carbohydrates and co-liquefaction to produce 5-ethoxymethyl furfural. <i>Fuel</i> , 2022, 311, 122499.	3.4	4
56	Separated adsorption and bacterial degradation of microcystins in GAC filtration. <i>International Journal of Environment and Waste Management</i> , 2009, 3, 236.	0.2	3
57	Investigation of selective release of periplasmic proteins through pore size analysis and single-cell microscopy in <i>Escherichia coli</i> . <i>Biochemical Engineering Journal</i> , 2021, 171, 108009.	1.8	2
58	Antibacterial action of functional silicon dioxide: an investigation of the attachment and separation of bacteria. <i>Environmental Technology (United Kingdom)</i> , 2020, 41, 703-710.	1.2	1
59	Catalytic Hydro-Cracking of Bio-Oil to Bio-Fuel. <i>Environmental Footprints and Eco-design of Products and Processes</i> , 2017, , 205-223.	0.7	0