

Patrick Biller

List of Publications by Year in descending order

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46
papers

4,995
citations

257101

24
h-index

288905

40
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all docs

46
docs citations

46
times ranked

3595
citing authors

#	ARTICLE	IF	CITATIONS
1	Potential yields and properties of oil from the hydrothermal liquefaction of microalgae with different biochemical content. <i>Bioresource Technology</i> , 2011, 102, 215-225.	4.8	926
2	Hydrothermal liquefaction of biomass: Developments from batch to continuous process. <i>Bioresource Technology</i> , 2015, 178, 147-156.	4.8	729
3	Hydrothermal processing of microalgae using alkali and organic acids. <i>Fuel</i> , 2010, 89, 2234-2243.	3.4	525
4	Nutrient recycling of aqueous phase for microalgae cultivation from the hydrothermal liquefaction process. <i>Algal Research</i> , 2012, 1, 70-76.	2.4	415
5	Catalytic hydrothermal processing of microalgae: Decomposition and upgrading of lipids. <i>Bioresource Technology</i> , 2011, 102, 4841-4848.	4.8	237
6	Pilot plant testing of continuous hydrothermal liquefaction of microalgae. <i>Algal Research</i> , 2013, 2, 268-277.	2.4	226
7	Hydroprocessing of bio-crude from continuous hydrothermal liquefaction of microalgae. <i>Fuel</i> , 2015, 159, 197-205.	3.4	221
8	The seasonal variation of fucoidan within three species of brown macroalgae. <i>Algal Research</i> , 2017, 22, 79-86.	2.4	158
9	Effect of hydrothermal liquefaction aqueous phase recycling on bio-crude yields and composition. <i>Bioresource Technology</i> , 2016, 220, 190-199.	4.8	141
10	Two-stage hydrothermal liquefaction of a high-protein microalga. <i>Algal Research</i> , 2015, 8, 15-22.	2.4	140
11	Continuous Hydrothermal Liquefaction of Biomass in a Novel Pilot Plant with Heat Recovery and Hydraulic Oscillation. <i>Energies</i> , 2018, 11, 2695.	1.6	130
12	Hydrogen production from the catalytic supercritical water gasification of process water generated from hydrothermal liquefaction of microalgae. <i>Fuel</i> , 2016, 166, 24-28.	3.4	113
13	Hydrothermal processing of algal biomass for the production of biofuels and chemicals. <i>Biofuels</i> , 2012, 3, 603-623.	1.4	108
14	Hydrothermal microwave processing of microalgae as a pre-treatment and extraction technique for bio-fuels and bio-products. <i>Bioresource Technology</i> , 2013, 136, 188-195.	4.8	91
15	Pyrolysis GC-MS as a novel analysis technique to determine the biochemical composition of microalgae. <i>Algal Research</i> , 2014, 6, 91-97.	2.4	80
16	Hydrothermal liquefaction of sewage sludge; energy considerations and fate of micropollutants during pilot scale processing. <i>Water Research</i> , 2020, 183, 116101.	5.3	73
17	Primary sewage sludge filtration using biomass filter aids and subsequent hydrothermal co-liquefaction. <i>Water Research</i> , 2018, 130, 58-68.	5.3	65
18	Predicting the Chemical Composition of Aqueous Phase from Hydrothermal Liquefaction of Model Compounds and Biomasses. <i>Energy & Fuels</i> , 2016, 30, 10470-10483.	2.5	64

#	ARTICLE	IF	CITATIONS
19	Hydrothermal co-liquefaction of biomasses – quantitative analysis of bio-crude and aqueous phase composition. <i>Sustainable Energy and Fuels</i> , 2017, 1, 789-805.	2.5	62
20	Characterizing Semivolatile Organic Compounds of Biocrude from Hydrothermal Liquefaction of Biomass. <i>Energy & Fuels</i> , 2017, 31, 4122-4134.	2.5	51
21	Screening of common synthetic polymers for depolymerization by subcritical hydrothermal liquefaction. <i>Chemical Engineering Research and Design</i> , 2020, 139, 371-379.	2.7	50
22	Catalytic hydrotreatment of bio-crude produced from the hydrothermal liquefaction of aspen wood: a catalyst screening and parameter optimization study. <i>Sustainable Energy and Fuels</i> , 2017, 1, 832-841.	2.5	45
23	Nanoparticles of Pd supported on bacterial biomass for hydroprocessing crude bio-oil. <i>Fuel</i> , 2017, 209, 449-456.	3.4	31
24	Microalgae biorefinery concept based on hydrothermal microwave pyrolysis. <i>Green Chemistry</i> , 2012, 14, 3251.	4.6	29
25	Assessing combustion and emission performance of direct use of SVO in a diesel engine by oxygen enrichment of intake air method. <i>Biomass and Bioenergy</i> , 2013, 51, 43-52.	2.9	23
26	Hydrothermal liquefaction aqueous phase treatment and hydrogen production using electro-oxidation. <i>Energy Conversion and Management</i> , 2021, 244, 114462.	4.4	23
27	Investigation of the presence of an aliphatic biopolymer in cyanobacteria: Implications for kerogen formation. <i>Organic Geochemistry</i> , 2015, 81, 64-69.	0.9	22
28	Wet oxidation of aqueous phase from hydrothermal liquefaction of sewage sludge. <i>Water Research</i> , 2022, 209, 117863.	5.3	22
29	Distribution of nutrients and phosphorus recovery in hydrothermal liquefaction of waste streams. <i>Biomass and Bioenergy</i> , 2022, 156, 106323.	2.9	22
30	Detailed Investigation into the Asphaltene Fraction of Hydrothermal Liquefaction Derived Bio-Crude and Hydrotreated Bio-Crudes. <i>Energy & Fuels</i> , 2018, 32, 3579-3587.	2.5	19
31	Rapid Determination of Water, Total Acid Number, and Phenolic Content in Bio-Crude from Hydrothermal Liquefaction of Biomass using FT-IR. <i>Energy & Fuels</i> , 2018, 32, 7660-7669.	2.5	18
32	Hydrothermal Co-Liquefaction of Synthetic Polymers and <i>Miscanthus giganteus</i> : Synergistic and Antagonistic Effects. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 19051-19061.	3.2	16
33	Effect of Multifunctional Fuel Additive Package on Fuel Injector Deposit, Combustion and Emissions using Pure Rape Seed Oil for a DI Diesel. <i>SAE International Journal of Fuels and Lubricants</i> , 0, 2, 54-65.	0.2	15
34	Production of biofuels via hydrothermal conversion. , 2016, , 509-547.		15
35	Rheological studies of municipal sewage sludge slurries for hydrothermal liquefaction biorefinery applications. <i>Chemical Engineering Research and Design</i> , 2021, 166, 148-157.	2.7	11
36	Combined Hydrothermal Liquefaction of Polyurethane and Lignocellulosic Biomass for Improved Carbon Recovery. <i>Energy & Fuels</i> , 2021, 35, 10630-10640.	2.5	11

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37	Assessment of agricultural crops and natural vegetation in Scotland for energy production by anaerobic digestion and hydrothermal liquefaction. <i>Biomass Conversion and Biorefinery</i> , 2017, 7, 467-477.	2.9	10
38	Synergies during hydrothermal liquefaction of cow manure and wheat straw. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 108181.	3.3	10
39	Hydrothermal liquefaction of post-consumer mixed textile waste for recovery of bio-oil and terephthalic acid. <i>Resources, Conservation and Recycling</i> , 2022, 185, 106502.	5.3	10
40	Hydrothermal Liquefaction: A Promising Pathway Towards Renewable Jet Fuel. , 2018, , 607-635.		9
41	The Influence of Fuel Pre-Heating on Combustion and Emissions with 100% Rapeseed Oil for a DI Diesel Engine. , 2009, , .		8
42	Hydrothermal liquefaction of aquatic Feedstocks. , 2018, , 101-125.		7
43	The influence of feedstock characteristics on processability of biosolid slurries for conversion to renewable crude oil via hydrothermal liquefaction. <i>Chemical Engineering Research and Design</i> , 2020, 162, 284-294.	2.7	5
44	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
45	Potential Use of Plant Biomass from Treatment Wetland Systems for Producing Biofuels through a Biocrude Green-Biorefining Platform. <i>Energies</i> , 2021, 14, 8157.	1.6	3
46	Rape Seed Oil B100 Diesel Engine Particulate Emissions: The Influence of Intake Oxygen on Particle Size Distribution. , 2012, , .		2