Patrick Biller

List of Publications by Year
in descending order

46 papers	4,995 citations	257450 24 h-index	289244 40 g-index
46 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. Bioresource Technology, 2011, 102, 215-225.	9.6	926
2	Hydrothermal liquefaction of biomass: Developments from batch to continuous process. Bioresource Technology, 2015, 178, 147-156.	9.6	729
3	Hydrothermal processing of microalgae using alkali and organic acids. Fuel, 2010, 89, 2234-2243.	6.4	525
4	Nutrient recycling of aqueous phase for microalgae cultivation from the hydrothermal liquefaction process. Algal Research, 2012, 1, 70-76.	4.6	415
5	Catalytic hydrothermal processing of microalgae: Decomposition and upgrading of lipids. Bioresource Technology, 2011, 102, 4841-4848.	9.6	237
6	Pilot plant testing of continuous hydrothermal liquefaction of microalgae. Algal Research, 2013, 2, 268-277.	4.6	226
7	Hydroprocessing of bio-crude from continuous hydrothermal liquefaction of microalgae. Fuel, 2015, 159, 197-205.	6.4	221
8	The seasonal variation of fucoidan within three species of brown macroalgae. Algal Research, 2017, 22, 79-86.	4.6	158
9	Effect of hydrothermal liquefaction aqueous phase recycling on bio-crude yields and composition. Bioresource Technology, 2016, 220, 190-199.	9.6	141
10	Two-stage hydrothermal liquefaction of a high-protein microalga. Algal Research, 2015, 8, 15-22.	4.6	140
11	Continuous Hydrothermal Liquefaction of Biomass in a Novel Pilot Plant with Heat Recovery and Hydraulic Oscillation. Energies, 2018, 11, 2695.	3.1	130
12	Hydrogen production from the catalytic supercritical water gasification of process water generated from hydrothermal liquefaction of microalgae. Fuel, 2016, 166, 24-28.	6.4	113
13	Hydrothermal processing of algal biomass for the production of biofuels and chemicals. Biofuels, 2012, 3, 603-623.	2.4	108
14	Hydrothermal microwave processing of microalgae as a pre-treatment and extraction technique for bio-fuels and bio-products. Bioresource Technology, 2013, 136, 188-195.	9.6	91
15	Pyrolysis GCâ€"MS as a novel analysis technique to determine the biochemical composition of microalgae. Algal Research, 2014, 6, 91-97.	4.6	80
16	Hydrothermal liquefaction of sewage sludge; energy considerations and fate of micropollutants during pilot scale processing. Water Research, 2020, 183, 116101.	11.3	73
17	Primary sewage sludge filtration using biomass filter aids and subsequent hydrothermal co-liquefaction. Water Research, 2018, 130, 58-68.	11.3	65
18	Predicting the Chemical Composition of Aqueous Phase from Hydrothermal Liquefaction of Model Compounds and Biomasses. Energy & Fuels, 2016, 30, 10470-10483.	5.1	64

#	Article	IF	Citations
19	Hydrothermal co-liquefaction of biomasses â€“ quantitative analysis of bio-crude and aqueous phase composition. Sustainable Energy and Fuels, 2017, 1, 789-805.	4.9	62
20	Characterizing Semivolatile Organic Compounds of Biocrude from Hydrothermal Liquefaction of Biomass. Energy & Fuels, 2017, 31, 4122-4134.	5.1	51
21	Screening of common synthetic polymers for depolymerization by subcritical hydrothermal liquefaction. Chemical Engineering Research and Design, 2020, 139, 371-379.	5.6	50
22	Catalytic hydrotreatment of bio-crude produced from the hydrothermal liquefaction of aspen wood: a catalyst screening and parameter optimization study. Sustainable Energy and Fuels, 2017, 1, 832-841.	4.9	45
23	Nanoparticles of Pd supported on bacterial biomass for hydroprocessing crude bio-oil. Fuel, 2017, 209, 449-456.	6.4	31
24	Microalgae biorefinery concept based on hydrothermal microwave pyrolysis. Green Chemistry, 2012, 14, 3251.	9.0	29
25	Assessing combustion and emission performance of direct use of SVO in a diesel engine by oxygen enrichment of intake air method. Biomass and Bioenergy, 2013, 51, 43-52.	5.7	23
26	Hydrothermal liquefaction aqueous phase treatment and hydrogen production using electro-oxidation. Energy Conversion and Management, 2021, 244, 114462.	9.2	23
27	Investigation of the presence of an aliphatic biopolymer in cyanobacteria: Implications for kerogen formation. Organic Geochemistry, 2015, 81, 64-69.	1.8	22
28	Wet oxidation of aqueous phase from hydrothermal liquefaction of sewage sludge. Water Research, 2022, 209, 117863.	11.3	22
29	Distribution of nutrients and phosphorus recovery in hydrothermal liquefaction of waste streams. Biomass and Bioenergy, 2022, 156, 106323.	5.7	22
30	Detailed Investigation into the Asphaltene Fraction of Hydrothermal Liquefaction Derived Bio-Crude and Hydrotreated Bio-Crudes. Energy & Fuels, 2018, 32, 3579-3587.	5.1	19
31	Rapid Determination of Water, Total Acid Number, and Phenolic Content in Bio-Crude from Hydrothermal Liquefaction of Biomass using FT-IR. Energy & Fuels, 2018, 32, 7660-7669.	5.1	18
32	Hydrothermal Co-Liquefaction of Synthetic Polymers and Miscanthus giganteus: Synergistic and Antagonistic Effects. ACS Sustainable Chemistry and Engineering, 2020, 8, 19051-19061.	6.7	16
33	Effect of Multifunctional Fuel Additive Package on Fuel Injector Deposit, Combustion and Emissions using Pure Rape Seed Oil for a DI Diesel. SAE International Journal of Fuels and Lubricants, 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. Chemical Engineering Research and Design, 2021, 166, 148-157.	5.6	11
36	Combined Hydrothermal Liquefaction of Polyurethane and Lignocellulosic Biomass for Improved Carbon Recovery. Energy & Fuels, 2021, 35, 10630-10640.	5.1	11

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37	Assessment of agricultural crops and natural vegetation in Scotland for energy production by anaerobic digestion and hydrothermal liquefaction. Biomass Conversion and Biorefinery, 2017, 7, 467-477.	4.6	10
38	Synergies during hydrothermal liquefaction of cow manure and wheat straw. Journal of Environmental Chemical Engineering, 2022, 10, 108181.	6.7	10
39	Hydrothermal liquefaction of post-consumer mixed textile waste for recovery of bio-oil and terephthalic acid. Resources, Conservation and Recycling, 2022, 185, 106502.	10.8	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. Chemical Engineering Research and Design, 2020, 162, 284-294.	5.6	5
44	Viscosity Variation of Model Compounds during Hydrothermal Liquefaction under Subcritical Conditions of Water. Industrial & Engineering Chemistry Research, 2021, 60, 980-989.	3.7	4
45	Potential Use of Plant Biomass from Treatment Wetland Systems for Producing Biofuels through a Biocrude Green-Biorefining Platform. Energies, 2021, 14, 8157.	3.1	3
46	Rape Seed Oil B100 Diesel Engine Particulate Emissions: The Influence of Intake Oxygen on Particle Size Distribution. , 2012, , .		2