Patrick Biller

List of Publications by Citations

44 papers	3,917 citations	22 h-index	46 g-index
46 ext. papers	4,478 ext. citations	6.6 avg, IF	5.86 L-index

#	Paper	IF	Citations
44	Potential yields and properties of oil from the hydrothermal liquefaction of microalgae with different biochemical content. *Bioresource Technology*, **2011**, 102, 215-25	11	781
43	Hydrothermal liquefaction of biomass: developments from batch to continuous process. *Bioresource Technology*, **2015**, 178, 147-156	11	586
42	Hydrothermal processing of microalgae using alkali and organic acids. *Fuel*, **2010**, 89, 2234-2243	7.1	459
41	Nutrient recycling of aqueous phase for microalgae cultivation from the hydrothermal liquefaction process. *Algal Research*, **2012**, 1, 70-76	5	372
40	Catalytic hydrothermal processing of microalgae: decomposition and upgrading of lipids. *Bioresource Technology*, **2011**, 102, 4841-8	11	212
39	Pilot plant testing of continuous hydrothermal liquefaction of microalgae. *Algal Research*, **2013**, 2, 268-277	5	199
38	Hydroprocessing of bio-crude from continuous hydrothermal liquefaction of microalgae. *Fuel*, **2015**, 159, 197-205	7.1	174
37	Two-stage hydrothermal liquefaction of a high-protein microalga. *Algal Research*, **2015**, 8, 15-22	5	114
36	Effect of hydrothermal liquefaction aqueous phase recycling on bio-crude yields and composition. *Bioresource Technology*, **2016**, 220, 190-199	11	103
35	Hydrothermal processing of algal biomass for the production of biofuels and chemicals. *Biofuels*, **2012**, 3, 603-623	2	99
34	The seasonal variation of fucoidan within three species of brown macroalgae. *Algal Research*, **2017**, 22, 79-86	5	98
33	Hydrogen production from the catalytic supercritical water gasification of process water generated from hydrothermal liquefaction of microalgae. *Fuel*, **2016**, 166, 24-28	7.1	86
32	Hydrothermal microwave processing of microalgae as a pre-treatment and extraction technique for bio-fuels and bio-products. *Bioresource Technology*, **2013**, 136, 188-95	11	76
31	Continuous Hydrothermal Liquefaction of Biomass in a Novel Pilot Plant with Heat Recovery and Hydraulic Oscillation. *Energies*, **2018**, 11, 2695	3.1	76
30	Pyrolysis GC–MS as a novel analysis technique to determine the biochemical composition of microalgae. *Algal Research*, **2014**, 6, 91-97	5	61
29	Primary sewage sludge filtration using biomass filter aids and subsequent hydrothermal co-liquefaction. *Water Research*, **2018**, 130, 58-68	12.5	48
28	Hydrothermal co-liquefaction of biomasses – quantitative analysis of bio-crude and aqueous phase composition. *Sustainable Energy and Fuels*, **2017**, 1, 789-805	5.8	44

27	Predicting the Chemical Composition of Aqueous Phase from Hydrothermal Liquefaction of Model Compounds and Biomasses. *Energy & Fuels*, **2016**, 30, 10470-10483	4.1	40
26	Characterizing Semivolatile Organic Compounds of Biocrude from Hydrothermal Liquefaction of Biomass. *Energy & Fuels*, **2017**, 31, 4122-4134	4.1	38
25	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	5.8	30
24	Hydrothermal liquefaction of sewage sludge; energy considerations and fate of micropollutants during pilot scale processing. *Water Research*, **2020**, 183, 116101	12.5	27
23	Microalgae biorefinery concept based on hydrothermal microwave pyrolysis. *Green Chemistry*, **2012**, 14, 3251	10	26
22	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	5.3	20
21	Screening of common synthetic polymers for depolymerization by subcritical hydrothermal liquefaction. *Chemical Engineering Research and Design*, **2020**, 139, 371-379	5.5	19
20	Nanoparticles of Pd supported on bacterial biomass for hydroprocessing crude bio-oil. *Fuel*, **2017**, 209, 449-456	7.1	19
19	Investigation of the presence of an aliphatic biopolymer in cyanobacteria: Implications for kerogen formation. *Organic Geochemistry*, **2015**, 81, 64-69	3.1	17
18	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*, **2009**, 2, 54-65	1.8	14
17	Detailed Investigation into the Asphaltene Fraction of Hydrothermal Liquefaction Derived Bio-Crude and Hydrotreated Bio-Crudes. *Energy & Fuels*, **2018**, 32, 3579-3587	4.1	12
16	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	4.1	12
15	The Influence of Fuel Pre-Heating on Combustion and Emissions with 100% Rapeseed Oil for a DI Diesel Engine **2009**,		8
14	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	2.3	7
13	Hydrothermal Co-Liquefaction of Synthetic Polymers and Miscanthus giganteus: Synergistic and Antagonistic Effects. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 19051-19061	8.3	7
12	Production of biofuels via hydrothermal conversion **2016**, 509-547		7
11	Hydrothermal Liquefaction: A Promising Pathway Towards Renewable Jet Fuel **2018**, 607-635		6
10	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	5.5	4

9	Rheological studies of municipal sewage sludge slurries for hydrothermal liquefaction biorefinery applications. *Chemical Engineering Research and Design*, **2021**, 166, 148-157	5.5	4
8	Hydrothermal liquefaction aqueous phase treatment and hydrogen production using electro-oxidation. *Energy Conversion and Management*, **2021**, 244, 114462	10.6	3
7	Hydrothermal liquefaction of aquatic Feedstocks **2018**, 101-125		2
6	Rape Seed Oil B100 Diesel Engine Particulate Emissions: The Influence of Intake Oxygen on Particle Size Distribution **2012**,		2
5	Distribution of nutrients and phosphorus recovery in hydrothermal liquefaction of waste streams. *Biomass and Bioenergy*, **2022**, 156, 106323	5.3	2
4	Wet oxidation of aqueous phase from hydrothermal liquefaction of sewage sludge. *Water Research*, **2021**, 209, 117863	12.5	1
3	Viscosity Variation of Model Compounds during Hydrothermal Liquefaction under Subcritical Conditions of Water. *Industrial & Engineering Chemistry Research*, **2021**, 60, 980-989	3.9	1
2	Potential Use of Plant Biomass from Treatment Wetland Systems for Producing Biofuels through a Biocrude Green-Biorefining Platform. *Energies*, **2021**, 14, 8157	3.1	1
1	Combined Hydrothermal Liquefaction of Polyurethane and Lignocellulosic Biomass for Improved Carbon Recovery. *Energy & Fuels*, **2021**, 35, 10630-10640	4.1	0