Douglas C Elliott

List of Publications by Citations

74 papers	7,193 citations	42 h-index	77 g-index
77 ext. papers	7,736 ext. citations	4.8 avg, IF	6.43 L-index

#	Paper	IF	Citations
74	Historical Developments in Hydroprocessing Bio-oils. *Energy & Fuels*, **2007**, 21, 1792-1815	4.1	1089
73	Hydrothermal liquefaction of biomass: developments from batch to continuous process. *Bioresource Technology*, **2015**, 178, 147-156	11	586
72	A review and perspective of recent bio-oil hydrotreating research. *Green Chemistry*, **2014**, 16, 491-515	10	362
71	Process development for hydrothermal liquefaction of algae feedstocks in a continuous-flow reactor. *Algal Research*, **2013**, 2, 445-454	5	341
70	Catalytic Hydroprocessing of Chemical Models for Bio-oil. *Energy & Fuels*, **2009**, 23, 631-637	4.1	302
69	Catalytic hydroprocessing of biomass fast pyrolysis bio-oil to produce hydrocarbon products. *Environmental Progress and Sustainable Energy*, **2009**, 28, 441-449	2.5	294
68	Catalytic hydrothermal gasification of biomass. *Biofuels, Bioproducts and Biorefining*, **2008**, 2, 254-265	5.3	290
67	Chemical processing in high-pressure aqueous environments. 2. Development of catalysts for gasification. *Industrial & Engineering Chemistry Research*, **1993**, 32, 1542-1548	3.9	245
66	Techno-economic analysis of liquid fuel production from woody biomass via hydrothermal liquefaction (HTL) and upgrading. *Applied Energy*, **2014**, 129, 384-394	10.7	239
65	State-of-the-art of fast pyrolysis in IEA bioenergy member countries. *Renewable and Sustainable Energy Reviews*, **2013**, 20, 619-641	16.2	223
64	Acidity of Biomass Fast Pyrolysis Bio-oils. *Energy & Fuels*, **2010**, 24, 6548-6554	4.1	202
63	Catalytic Hydroprocessing of Fast Pyrolysis Bio-oil from Pine Sawdust. *Energy & Fuels*, **2012**, 26, 3891-3896	4.1	165
62	Development of hydrothermal liquefaction and upgrading technologies for lipid-extracted algae conversion to liquid fuels. *Algal Research*, **2013**, 2, 455-464	5	122
61	Chemical Processing in High-Pressure Aqueous Environments. 8. Improved Catalysts for Hydrothermal Gasification. *Industrial & Engineering Chemistry Research*, **2006**, 45, 3776-3781	3.9	121
60	Norms, Standards, and Legislation for Fast Pyrolysis Bio-oils from Lignocellulosic Biomass. *Energy & Fuels*, **2015**, 29, 2471-2484	4.1	116
59	Chemical Processing in High-Pressure Aqueous Environments. 4. Continuous-Flow Reactor Process Development Experiments for Organics Destruction. *Industrial & Engineering Chemistry Research*, **1994**, 33, 566-574	3.9	108
58	Chemical Processing in high-pressure aqueous environments. 3. Batch reactor process development experiments for organics destruction. *Industrial & Engineering Chemistry Research*, **1994**, 33, 558-565	3.9	107

57	Analysis of Oxygenated Compounds in Hydrotreated Biomass Fast Pyrolysis Oil Distillate Fractions. *Energy & Fuels*, **2011**, 25, 5462-5471	4.1	101
56	Characterization of functionalized nanoporous supports for protein confinement. *Nanotechnology*, **2006**, 17, 5531-8	3.4	100
55	Conversion of biomass-derived syngas to alcohols and C2 oxygenates using supported Rh catalysts in a microchannel reactor. *Catalysis Today*, **2007**, 120, 90-95	5.3	97
54	Chemical Processing in High-Pressure Aqueous Environments. 7. Process Development for Catalytic Gasification of Wet Biomass Feedstocks. *Industrial & Engineering Chemistry Research*, **2004**, 43, 1999-2004	3.9	92
53	Process Design and Economics for the Conversion of Algal Biomass to Hydrocarbons: Whole Algae Hydrothermal Liquefaction and Upgrading		92
52	Hydrothermal Processing of Macroalgal Feedstocks in Continuous-Flow Reactors. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 207-215	8.3	84
51	Review of recent reports on process technology for thermochemical conversion of whole algae to liquid fuels. *Algal Research*, **2016**, 13, 255-263	5	80
50	Chemical processing in high-pressure aqueous environments. 1. Historical perspective and continuing developments. *Industrial & Engineering Chemistry Research*, **1993**, 32, 1535-1541	3.9	78
49	Conversion of Biomass Syngas to DME Using a Microchannel Reactor. *Industrial & Engineering Chemistry Research*, **2005**, 44, 1722-1727	3.9	75
48	Aqueous catalyst systems for the water-gas shift reaction. 1. Comparative catalyst studies. *Industrial & Engineering Chemistry Product Research and Development*, **1983**, 22, 426-431		70
47	Hydrocarbon Liquid Production via Catalytic Hydroprocessing of Phenolic Oils Fractionated from Fast Pyrolysis of Red Oak and Corn Stover. *ACS Sustainable Chemistry and Engineering*, **2015**, 3, 892-902	8.3	66
46	Stabilization of Softwood-Derived Pyrolysis Oils for Continuous Bio-oil Hydroprocessing. *Topics in Catalysis*, **2016**, 59, 55-64	2.3	63
45	Hydrocarbon Liquid Production from Biomass via Hot-Vapor-Filtered Fast Pyrolysis and Catalytic Hydroprocessing of the Bio-oil. *Energy & Fuels*, **2014**, 28, 5909-5917	4.1	62
44	Aqueous catalyst systems for the water-gas shift reaction. 2. Mechanism of basic catalysis. *Industrial & Engineering Chemistry Product Research and Development*, **1983**, 22, 431-435		62
43	Water, alkali and char in flash pyrolysis oils. *Biomass and Bioenergy*, **1994**, 7, 179-185	5.3	61
42	Catalytic Wet Gasification of Municipal and Animal Wastes. *Industrial & Engineering Chemistry Research*, **2007**, 46, 8839-8845	3.9	59
41	Biofuel from fast pyrolysis and catalytic hydrodeoxygenation. *Current Opinion in Chemical Engineering*, **2015**, 9, 59-65	5.4	58
40	Results of the IEA Round Robin on Viscosity and Stability of Fast Pyrolysis Bio-oils. *Energy & Fuels*, **2012**, 26, 3769-3776	4.1	55

39	Development of the Basis for an Analytical Protocol for Feeds and Products of Bio-oil Hydrotreatment. *Energy & Fuels*, **2012**, 26, 2454-2460	4.1	51
38	Results of the IEA Round Robin on Viscosity and Aging of Fast Pyrolysis Bio-oils: Long-Term Tests and Repeatability. *Energy & Fuels*, **2012**, 26, 7362-7366	4.1	49
37	Chemical Processing in High-Pressure Aqueous Environments. 6. Demonstration of Catalytic Gasification for Chemical Manufacturing Wastewater Cleanup in Industrial Plants. *Industrial & Engineering Chemistry Research*, **1999**, 38, 879-883	3.9	49
36	Red Mud Catalytic Pyrolysis of Pinyon Juniper and Single-Stage Hydrotreatment of Oils. *Energy & Fuels*, **2016**, 30, 7947-7958	4.1	46
35	Guidelines for Transportation, Handling, and Use of Fast Pyrolysis Bio-Oil. 1. Flammability and Toxicity. *Energy & Fuels*, **2012**, 26, 3864-3873	4.1	46
34	The effect of catalysis on wood-gasification tar composition. *Bioresource Technology*, **1986**, 9, 195-203		44
33	Hydroprocessing Bio-Oil and Products Separation for Coke Production. *ACS Sustainable Chemistry and Engineering*, **2013**, 1, 389-392	8.3	42
32	Chemical Processing in High-Pressure Aqueous Environments. 9. Process Development for Catalytic Gasification of Algae Feedstocks. *Industrial & Engineering Chemistry Research*, **2012**, 51, 10768-10777	3.9	42
31	Comparisons of the yields and properties of the oil products from direct thermochemical biomass liquefaction processes. *Canadian Journal of Chemical Engineering*, **1985**, 63, 99-104	2.3	41
30	Results of the International Energy Agency Round Robin on Fast Pyrolysis Bio-oil Production. *Energy & Fuels*, **2017**, 31, 5111-5119	4.1	40
29	Transportation fuels from biomass via fast pyrolysis and hydroprocessing. *Wiley Interdisciplinary Reviews: Energy and Environment*, **2013**, 2, 525-533	4.7	37
28	Hydrothermal Processing **2011**, 200-231		33
27	Catalytic hydrotreating of black liquor oils. *Energy & Fuels*, **1991**, 5, 102-109	4.1	33
26	Biomass Direct Liquefaction Options. TechnoEconomic and Life Cycle Assessment		33
25	Production of Gasoline and Diesel from Biomass via Fast Pyrolysis, Hydrotreating and Hydrocracking: A Design Case		33
24	Pyrolysis of Woody Residue Feedstocks: Upgrading of Bio-oils from Mountain-Pine-Beetle-Killed Trees and Hog Fuel. *Energy & Fuels*, **2014**, 28, 7510-7516	4.1	31
23	Technology advancements in hydroprocessing of bio-oils. *Biomass and Bioenergy*, **2019**, 125, 151-168	5.3	29
22	Effects of trace contaminants on catalytic processing of biomass-derived feedstocks. *Applied Biochemistry and Biotechnology*, **2004**, 113-116, 807-25	3.2	28

21	Chemical Processing in High-Pressure Aqueous Environments. 5. New Processing Concepts. *Industrial & Engineering Chemistry Research*, **1996**, 35, 4111-4118	3.9	27
20	Characterization of upgraded fast pyrolysis oak oil distillate fractions from sulfided and non-sulfided catalytic hydrotreating. *Fuel*, **2017**, 202, 620-630	7.1	24
19	Conversion of a wet waste feedstock to biocrude by hydrothermal processing in a continuous-flow reactor: grape pomace. *Biomass Conversion and Biorefinery*, **2017**, 7, 455-465	2.3	23
18	Product Analysis from Direct Liquefaction of Several High-Moisture Biomass Feedstocks. *ACS Symposium Series*, **1988**, 179-188	0.4	18
17	Bench-Scale Reactor Tests of Low Temperature, Catalytic Gasification of Wet Industrial Wastes. *Journal of Solar Energy Engineering, Transactions of the ASME*, **1993**, 115, 52-56	2.3	15
16	Aqueous catalyst systems for the water-gas shift reaction. 3. Continuous gas processing results. *Industrial & Engineering Chemistry Product Research and Development*, **1986**, 25, 541-549		15
15	Alkali catalysis in biomass gasification. *Journal of Analytical and Applied Pyrolysis*, **1984**, 6, 299-316	6	15
14	Decarboxylation as a means of upgrading the heating value of low-rank coals. *Fuel*, **1980**, 59, 805-806	7.1	13
13	Catalytic Hydrothermal Gasification of Lignin-Rich Biorefinery Residues and Algae Final Report		12
12	Analysis of thermochemically-derived wood oil. *Fuel*, **1984**, 63, 368-372	7.1	11
11	Analysis of chemical intermediates from low-temperature steam gasification of biomass. *Fuel*, **1984** , 63, 4-8	7.1	8
10	Stabilization of Fast Pyrolysis Oil: Post Processing Final Report		8
9	Low Temperature Gasification of Biomass Under Pressure **1985**, 937-950		8
8	Biomass Conversion to Produce Hydrocarbon Liquid Fuel Via Hot-vapor Filtered Fast Pyrolysis and Catalytic Hydrotreating. *Journal of Visualized Experiments*, **2016**,	1.6	5
7	Electrochemical Upgrading of Bio-Oil. *ECS Transactions*, **2017**, 78, 3149-3158	1	5
6	Analysis and Comparison of Products from Wood Liquefaction **1985**, 1003-1018		4
5	Hydrothermal liquefaction of sludge and biomass residues **2020**, 117-131		3
4	Effects of Trace Contaminants on Catalytic Processing of Biomass-Derived Feedstocks **2004**, 807-825		2

3 Upgrading Liquid Products: Notes from the Workshop at the International Conference Research in Thermochemical Biomass Conversion **1988**, 1170-1176 2

2 Transportation Fuels from Biomass via Fast Pyrolysis and Hydroprocessing **2015**, 65-72 1

1 Evaluation of Wastewater Treatment Requirements for Thermochemical Biomass Liquefaction **1993**, 1299-1313