

# David C Dayton

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

65  
papers

3,201  
citations

31  
h-index

56  
g-index

69  
ext. papers

3,534  
ext. citations

5.2  
avg. IF

4.9  
L-index

#	Paper	IF	Citations
65	Experimental investigation of naphthenic biofuel surrogate combustion in a compression ignition engine. <i>Fuel</i> , <b>2022</b> , 312, 122868	7.1	1
64	Phosphorus speciation analysis of fatty-acid-based feedstocks and fast pyrolysis biocrudes gel permeation chromatography inductively coupled plasma high-resolution mass spectrometry.. <i>RSC Advances</i> , <b>2021</b> , 11, 26732-26738	3.7	1
63	Improved understanding of technical lignin functionalization through comprehensive structural characterization of fractionated pine kraft lignins modified by the Mannich reaction. <i>Green Chemistry</i> , <b>2021</b> , 23, 7122-7136	10	2
62	Pilot-scale hydrotreating of catalytic fast pyrolysis biocrudes: process performance and product analysis. <i>Sustainable Energy and Fuels</i> , <b>2021</b> , 5, 4668-4679	5.8	1
61	Effect of Temperature on the Pilot-Scale Catalytic Pyrolysis of Loblolly Pine. <i>Energy &amp; Fuels</i> , <b>2021</b> , 35, 13181-13190	4.1	2
60	Tracking Elemental Composition through Hydrotreatment of an Upgraded Pyrolysis Oil Blended with a Light Gas Oil. <i>Energy &amp; Fuels</i> , <b>2020</b> , 34, 16181-16186	4.1	4
59	Detailed chemical composition of an oak biocrude and its hydrotreated product determined by positive atmospheric pressure photoionization Fourier transform ion cyclotron resonance mass spectrometry. <i>Sustainable Energy and Fuels</i> , <b>2020</b> , 4, 2404-2410	5.8	6
58	Reactive Catalytic Fast Pyrolysis of Biomass Over Molybdenum Oxide Catalysts: A Parametric Study. <i>Energy &amp; Fuels</i> , <b>2020</b> , 34, 4678-4684	4.1	8
57	Analytical Methods in Thermochemical Conversion <b>2020</b> , 75-88		1
56	Syngas Cleanup, Conditioning, and Utilization <b>2019</b> , 125-174		6
55	A selective extraction method for recovery of monofunctional methoxyphenols from biomass pyrolysis liquids. <i>Green Chemistry</i> , <b>2019</b> , 21, 2257-2265	10	15
54	Nontarget Analysis of Oxygenates in Catalytic Fast Pyrolysis Biocrudes by Supercritical Fluid Chromatography High-Resolution Mass Spectrometry. <i>Energy &amp; Fuels</i> , <b>2019</b> , 33, 296-306	4.1	1
53	Isolation and Purification of Monofunctional Methoxyphenols from Loblolly Pine Biocrude. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2019</b> , 7, 2262-2269	8.3	5
52	Nanostructured molybdenum carbide on biochar for CO <sub>2</sub> reforming of CH <sub>4</sub> . <i>Fuel</i> , <b>2018</b> , 225, 403-410	7.1	12
51	Complementary Analysis of the Water-Soluble and Water-Insoluble Fraction of Catalytic Fast Pyrolysis Biocrudes by Two-Dimensional Gas Chromatography. <i>Energy &amp; Fuels</i> , <b>2018</b> , 32, 5960-5968	4.1	6
50	Pilot-scale catalytic fast pyrolysis of loblolly pine over $\gamma$ -Al <sub>2</sub> O <sub>3</sub> catalyst. <i>Fuel</i> , <b>2018</b> , 214, 569-579	7.1	37
49	Reactive catalytic fast pyrolysis of biomass to produce high-quality bio-crude. <i>Green Chemistry</i> , <b>2017</b> , 19, 3243-3251	10	68

48	Techno-economic analysis of production of Fischer-Tropsch liquids via biomass gasification: The effects of Fischer-Tropsch catalysts and natural gas co-feeding. <i>Energy Conversion and Management</i> , <b>2017</b> , 133, 153-166	10.6	72
47	Biomass Conversion <b>2017</b> , 285-419		4
46	Influence of the Feedstock on Catalytic Fast Pyrolysis with a Solid Acid Catalyst. <i>Energy Technology</i> , <b>2017</b> , 5, 183-188	3.5	15
45	CHAPTER 5:Catalytic Biomass Pyrolysis with Reactive Gases. <i>RSC Green Chemistry</i> , <b>2017</b> , 78-95	0.9	2
44	Effect of torrefaction temperature on lignin macromolecule and product distribution from HZSM-5 catalytic pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2016</b> , 122, 95-105	6	48
43	Biomass Hydroropyrolysis in a Fluidized Bed Reactor. <i>Energy &amp; Fuels</i> , <b>2016</b> , 30, 4879-4887	4.1	41
42	Effect of Alkali and Alkaline Earth Metals on in-Situ Catalytic Fast Pyrolysis of Lignocellulosic Biomass: A Microreactor Study. <i>Energy &amp; Fuels</i> , <b>2016</b> , 30, 3045-3056	4.1	112
41	Integration of catalytic fast pyrolysis and hydroprocessing: a pathway to refinery intermediates and Drop-in Fuels from biomass. <i>Green Chemistry</i> , <b>2016</b> , 18, 6123-6135	10	37
40	Aqueous Stream Characterization from Biomass Fast Pyrolysis and Catalytic Fast Pyrolysis. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2016</b> , 4, 6815-6827	8.3	39
39	Production and distillative recovery of valuable lignin-derived products from biocrude. <i>RSC Advances</i> , <b>2016</b> , 6, 94247-94255	3.7	15
38	Graphite encapsulated molybdenum carbide core/shell nanocomposite for highly selective conversion of guaiacol to phenolic compounds in methanol. <i>Applied Catalysis A: General</i> , <b>2016</b> , 528, 123-130	5.1	17
37	Design and operation of a pilot-scale catalytic biomass pyrolysis unit. <i>Green Chemistry</i> , <b>2015</b> , 17, 4680-4689	4.1	54
36	Anisole and Guaiacol Hydrodeoxygenation Reaction Pathways over Selected Catalysts. <i>Energy &amp; Fuels</i> , <b>2015</b> , 29, 909-916	4.1	52
35	Biomass Hydroropyrolysis in a Pressurized Fluidized Bed Reactor. <i>Energy &amp; Fuels</i> , <b>2013</b> , 27, 3778-3785	4.1	53
34	Biomass Conversion <b>2012</b> , 1249-1322		3
33	Syngas Cleanup, Conditioning, and Utilization <b>2011</b> , 78-123		6
32	Direct detection of products from the pyrolysis of 2-phenethyl phenyl ether. <i>Journal of Physical Chemistry A</i> , <b>2011</b> , 115, 428-38	2.8	131
31	Biomass Conversion <b>2007</b> , 1449-1548		10

30	Fluidizable reforming catalyst development for conditioning biomass-derived syngas. <i>Applied Catalysis A: General</i> , <b>2007</b> , 318, 199-206	5.1	71
29	Evaluation of Catalyst Deactivation during Catalytic Steam Reforming of Biomass-Derived Syngas. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2005</b> , 44, 7945-7956	3.9	87
28	Chemical Analysis of Solids and Pyrolytic Vapors from Wildland Trees. <i>Energy &amp; Fuels</i> , <b>2003</b> , 17, 1022-1027	1.2	12
27	Intense, hyperthermal source of organic radicals for matrix-isolation spectroscopy. <i>Review of Scientific Instruments</i> , <b>2003</b> , 74, 3077-3086	1.7	72
26	Bench-Scale Biomass/Coal Cofiring Studies <b>2002</b> , 569-579		
25	Polarized Infrared Absorption Spectrum of Matrix-Isolated Methylperoxyl Radicals, CH <sub>3</sub> OO X 2A. <i>Journal of Physical Chemistry A</i> , <b>2002</b> , 106, 7547-7556	2.8	42
24	A Study of Cellulose Pyrolysis Chemistry and Global Kinetics at High Heating Rates. <i>Energy &amp; Fuels</i> , <b>2001</b> , 15, 1286-1294	4.1	49
23	The pyrolysis of anisole (C <sub>6</sub> H <sub>5</sub> OCH <sub>3</sub> ) using a hyperthermal nozzle. <i>Fuel</i> , <b>2001</b> , 80, 1747-1755	7.1	77
22	Polarized Infrared Absorption Spectra of Matrix-Isolated Allyl Radicals. <i>Journal of Physical Chemistry A</i> , <b>2001</b> , 105, 7514-7524	2.8	44
21	Design and Characterization of an Entrained Flow Reactor for the Study of Biomass Pyrolysis Chemistry at High Heating Rates. <i>Energy &amp; Fuels</i> , <b>2001</b> , 15, 1276-1285	4.1	53
20	Characterization of biomass pyrolysis vapors with molecular beam, single photon ionization time-of-flight mass spectrometry. <i>Chemosphere</i> , <b>2001</b> , 42, 663-9	8.4	36
19	Equilibrium Chemistry of Biomass Combustion: A Round-Robin Set of Calculations Using Available Computer Programs and Databases. <i>Energy &amp; Fuels</i> , <b>2001</b> , 15, 344-349	4.1	19
18	The infrared spectrum of the matrix-isolated phenyl radical. <i>Journal of the American Chemical Society</i> , <b>2001</b> , 123, 1977-88	16.4	90
17	Bamboo: an overlooked biomass resource?. <i>Biomass and Bioenergy</i> , <b>2000</b> , 19, 229-244	5.3	488
16	Release of Inorganic Constituents from Leached Biomass during Thermal Conversion. <i>Energy &amp; Fuels</i> , <b>1999</b> , 13, 860-870	4.1	203
15	Effect of Coal Minerals on Chlorine and Alkali Metals Released during Biomass/Coal Cofiring. <i>Energy &amp; Fuels</i> , <b>1999</b> , 13, 1203-1211	4.1	88
14	The behavior of inorganic material in biomass-fired power boilers: field and laboratory experiences. <i>Fuel Processing Technology</i> , <b>1998</b> , 54, 47-78	7.2	491
13	The Fate of Alkali Metal during Biomass Thermochemical Conversion <b>1997</b> , 1263-1277		

12	Laboratory Measurements of Alkali Metal Containing Vapors Released during Biomass Combustion <b>1996</b> , 161-185		11
11	Symposium on Biomass Fuels: An Introduction. <i>Energy &amp; Fuels</i> , <b>1996</b> , 10, 267-268	4.1	5
10	Direct Observation of Alkali Vapor Release during Biomass Combustion and Gasification. 2. Black Liquor Combustion at 1100 °C. <i>Energy &amp; Fuels</i> , <b>1996</b> , 10, 284-292	4.1	34
9	Direct Observation of Alkali Vapor Release during Biomass Combustion and Gasification. 1. Application of Molecular Beam/Mass Spectrometry to Switchgrass Combustion. <i>Energy &amp; Fuels</i> , <b>1995</b> , 9, 855-865	4.1	174
8	Flame structure study of a lean H <sub>2</sub> /N <sub>2</sub> O/Ar Flame employing molecular beam mass spectrometry and modeling. <i>Combustion and Flame</i> , <b>1994</b> , 99, 323-330	5.3	9
7	Detailed structure study of a low pressure, stoichiometric H <sub>2</sub> /N <sub>2</sub> O/Ar flame. <i>Combustion and Flame</i> , <b>1993</b> , 94, 407-425	5.3	39
6	Infrared spectroscopy of the HCN-(HF) <sub>2</sub> ternary complex. <i>Chemical Physics Letters</i> , <b>1989</b> , 156, 578-584	2.5	10
5	The lowest-frequency bending mode ( $\nu_1$ ) of HCN-HF from near-infrared laser spectroscopy. <i>Chemical Physics Letters</i> , <b>1988</b> , 150, 217-221	2.5	12
4	Gas-phase infrared spectroscopy of cyclopropane-HF and cyclopropane-HCN. <i>Chemical Physics Letters</i> , <b>1988</b> , 153, 285-290	2.5	3
3	Mode-dependent vibrational predissociation in the HCN-HF binary complex. <i>Chemical Physics Letters</i> , <b>1988</b> , 143, 181-185	2.5	48
2	Infrared spectroscopy of the bent isomer of N <sub>2</sub> O-HF. <i>Chemical Physics Letters</i> , <b>1988</b> , 143, 580-583	2.5	34
1	The Biorefinery7-37		13