Charles A Mullen

List of Publications by Year
in descending order

88 papers	5,470 citations	109321 35 h-index	82547 72 g-index
93 all docs	93 docs citations	93 times ranked	4830 citing authors

#	Article	IF	Citations
1	Bio-oil and bio-char production from corn cobs and stover by fast pyrolysis. Biomass and Bioenergy, 2010, 34, 67-74.	5.7	573
2	Screening acidic zeolites for catalytic fast pyrolysis of biomass and its components. Journal of Analytical and Applied Pyrolysis, 2011, 92, 224-232.	5.5	454
3	Catalytic pyrolysis-GC/MS of lignin from several sources. Fuel Processing Technology, 2010, 91, 1446-1458.	7.2	380
4	Chemical Composition of Bio-oils Produced by Fast Pyrolysis of Two Energy Crops. Energy & Fuels, 2008, 22, 2104-2109.	5.1	322
5	Characterization of Various Fast-Pyrolysis Bio-Oils by NMR Spectroscopy^{â€}. Energy & Fuels, 2009, 23, 2707-2718.	5.1	297
6	H-ZSM5 Catalyzed Co-Pyrolysis of Biomass and Plastics. ACS Sustainable Chemistry and Engineering, 2014, 2, 301-311.	6.7	192
7	Origin of carbon in aromatic and olefin products derived from HZSM-5 catalyzed co-pyrolysis of cellulose and plastics via isotopic labeling. Applied Catalysis B: Environmental, 2015, 162, 338-345.	20.2	142
8	Production of Aromatic Hydrocarbons via Catalytic Pyrolysis of Biomass over Fe-Modified HZSM-5 Zeolites. ACS Sustainable Chemistry and Engineering, 2015, 3, 1623-1631.	6.7	141
9	Catalytic pyrolysis-GC/MS of Spirulina: Evaluation of a highly proteinaceous biomass source for production of fuels and chemicals. Fuel, 2016, 179, 124-134.	6.4	128
10	Catalytic Fast Pyrolysis of White Oak Wood in a Bubbling Fluidized Bed. Energy & Fuels, 2011, 25, 5444-5451.	5.1	127
11	Catalytic transfer hydrogenation for stabilization of bio-oil oxygenates: Reduction of p-cresol and furfural over bimetallic Niâ€“Cu catalysts using isopropanol. Fuel Processing Technology, 2015, 137, 220-228.	7.2	115
12	Guaiacol Hydrodeoxygenation Mechanism on Pt(111): Insights from Density Functional Theory and Linear Free Energy Relations. ChemSusChem, 2015, 8, 315-322.	6.8	109
13	Hydrodeoxygenation of fast-pyrolysis bio-oils from various feedstocks using carbon-supported catalysts. Fuel Processing Technology, 2014, 123, 11-18.	7.2	105
14	Pyrolysis of forest residues: An approach to techno-economics for bio-fuel production. Fuel, 2017, 193, 477-484.	6.4	105
15	Production of Bio-oil from Alfalfa Stems by Fluidized-Bed Fast Pyrolysis. Industrial & Engineering Chemistry Research, 2008, 47, 4115-4122.	3.7	100
16	Characterization of water insoluble solids isolated from various biomass fast pyrolysis oils. Journal of Analytical and Applied Pyrolysis, 2011, 90, 197-203.	5.5	99
17	Analysis and Comparison of Bio-Oil Produced by Fast Pyrolysis from Three Barley Biomass/Byproduct Streams. Energy & Fuels, 2010, 24, 699-706.	5.1	92
18	Accumulation of Inorganic Impurities on HZSM-5 Zeolites during Catalytic Fast Pyrolysis of Switchgrass. Industrial & Engineering Chemistry Research, 2013, 52, 17156-17161.	3.7	87

#	ARTICLE	IF	CITATIONS
19	Catalytic co-pyrolysis of switchgrass and polyethylene over HZSM-5: Catalyst deactivation and coke formation. Journal of Analytical and Applied Pyrolysis, 2018, 129, 195-203.	5.5	81
20	Asymmetric Oxidative Cation/Olefin Cyclization of Polyenes: Evidence for Reversible Cascade Cyclization. Angewandte Chemie - International Edition, 2008, 47, 6011-6014.	13.8	80
21	Distillation and Isolation of Commodity Chemicals from Bio-Oil Made by Tail-Gas Reactive Pyrolysis. ACS Sustainable Chemistry and Engineering, 2014, 2, 2042-2052.	6.7	80
22	Production of Deoxygenated Biomass Fast Pyrolysis Oils via Product Gas Recycling. Energy & Fuels, 2013, 27, 3867-3874.	5.1	74
23	Mechanism of Dehydration of Phenols on Noble Metals via First-Principles Microkinetic Modeling. ACS Catalysis, 2016, 6, 3047-3055.	11.2	69
24	Production and Analysis of Fast Pyrolysis Oils from Proteinaceous Biomass. Bioenergy Research, 2011, 4, 303-311.	3.9	63
25	Role of Potassium Exchange in Catalytic Pyrolysis of Biomass over ZSM-5: Formation of Alkyl Phenols and Furans. ACS Sustainable Chemistry and Engineering, 2017, 5, 2154-2162.	6.7	58
26	Characterization of fast-pyrolysis bio-oil distillation residues and their potential applications. Journal of Analytical and Applied Pyrolysis, 2015, 114, 179-186.	5.5	56
27	Mass Balance, Energy, and Exergy Analysis of Bio-Oil Production by Fast Pyrolysis. Journal of Energy Resources Technology, Transactions of the ASME, 2012, 134, .	2.3	55
28	Aromatic Hydrocarbon Production from <i>Eucalyptus urophylla</i> Pyrolysis over Several Metalâ€Modified ZSMâ€5 Catalysts. Energy Technology, 2017, 5, 196-204.	3.8	53
29	Energy-dense liquid fuel intermediates by pyrolysis of guayule (Parthenium argentatum) shrub and bagasse. Fuel, 2009, 88, 2207-2215.	6.4	52
30	Sustainable production of bioenergy and biochar from the straw of highâ€biomass soybean lines via fast pyrolysis. Environmental Progress and Sustainable Energy, 2010, 29, 175-183.	2.3	51
31	Characterizing Biomass Fast Pyrolysis Oils by ¹³C NMR and Chemometric Analysis. Energy & Fuels, 2011, 25, 5452-5461.	5.1	49
32	Life Cycle Environmental and Economic Tradeoffs of Using Fast Pyrolysis Products for Power Generation. Energy & Fuels, 2013, 27, 2578-2587.	5.1	48
33	Maximizing the Stability of Pyrolysis Oil/Diesel Fuel Emulsions. Energy & Fuels, 2014, 28, 5918-5929.	5.1	48
34	Regioselective Oxidative Cation-Olefin Cyclization of Poly-enes:â€‰ Catalyst Turnover via Hydride Abstraction. Journal of the American Chemical Society, 2007, 129, 11880-11881.	13.7	45
35	Catalytic pyrolysis of oak via pyroprobe and bench scale, packed bed pyrolysis reactors. Journal of Analytical and Applied Pyrolysis, 2011, 90, 174-181.	5.5	41
36	Structural Analysis of Pyrolytic Lignins Isolated from Switchgrass Fast-Pyrolysis Oil. Energy & Fuels, 2015, 29, 8017-8026.	5.1	37

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37	Structureâ€“Property Characteristics of Pyrolytic Lignins Derived from Fast Pyrolysis of a Lignin Rich Biomass Extract. ACS Sustainable Chemistry and Engineering, 2013, 1, 260-267.	6.7	36
38	Evaluation of Brazilian biomasses as feedstocks for fuel production via fast pyrolysis. Energy for Sustainable Development, 2014, 21, 42-50.	4.5	34
39	Fluidized Bed Catalytic Pyrolysis of Eucalyptus over HZSM-5: Effect of Acid Density and Gallium Modification on Catalyst Deactivation. Energy & Fuels, 2018, 32, 1771-1778.	5.1	34
40	Effects of hot water extraction pretreatment on pyrolysis of shrub willow. Biomass and Bioenergy, 2017, 107, 299-304.	5.7	32
41	Biological Mineral Range Effects on Biomass Conversion to Aromatic Hydrocarbons via Catalytic Fast Pyrolysis over HZSM-5. Energy & Fuels, 2014, 28, 7014-7024.	5.1	31
42	Reliable Peak Selection for Multisample Analysis with Comprehensive Two-Dimensional Chromatography. Analytical Chemistry, 2013, 85, 4974-4981.	6.5	30
43	Hydrotreating of fast pyrolysis oils from protein-rich pennycress seed presscake. Fuel, 2013, 111, 797-804.	6.4	29
44	Effects of Various Reactive Gas Atmospheres on the Properties of Bio-Oils Produced Using Microwave Pyrolysis. ACS Sustainable Chemistry and Engineering, 2016, 4, 930-936.	6.7	26
45	Deoxygenation of Biomass Pyrolysis Vapors via in Situ and ex Situ Thermal and Biochar Promoted Upgrading. Energy & Fuels, 2019, 33, 2197-2207.	5.1	26
46	Mild pyrolysis of P3HB/switchgrass blends for the production of bio-oil enriched with crotonic acid. Journal of Analytical and Applied Pyrolysis, 2014, 107, 40-45.	5.5	25
47	Guayule (Parthenium argentatum) pyrolysis biorefining: Production of hydrocarbon compatible bio-oils from guayule bagasse via tail-gas reactive pyrolysis. Fuel, 2015, 158, 948-956.	6.4	25
48	Fuels and Chemicals from Equine-Waste-Derived Tail Gas Reactive Pyrolysis Oil: Technoeconomic Analysis, Environmental and Exergetic Life Cycle Assessment. ACS Sustainable Chemistry and Engineering, 2017, 5, 8804-8814.	6.7	25
49	Techno-economic analysis of guayule (Parthenium argentatum) pyrolysis biorefining: Production of biofuels from guayule bagasse via tail-gas reactive pyrolysis. Industrial Crops and Products, 2018, 112, 82-89.	5.2	25
50	Guayule (Parthenium argentatum) pyrolysis and analysis by PYâ€“GC/MS. Journal of Analytical and Applied Pyrolysis, 2010, 87, 14-23.	5.5	24
51	Packed-Bed Catalytic Cracking of Oak-Derived Pyrolytic Vapors. Industrial & Engineering Chemistry Research, 2011, 50, 13304-13312.	3.7	23
52	Exergy Based Assessment of the Production and Conversion of Switchgrass, Equine Waste, and Forest Residue to Bio-Oil Using Fast Pyrolysis. Industrial & Engineering Chemistry Research, 2015, 54, 529-539.	3.7	23
53	Aqueous Extractive Upgrading of Bio-Oils Created by Tail-Gas Reactive Pyrolysis To Produce Pure Hydrocarbons and Phenols. ACS Sustainable Chemistry and Engineering, 2015, 3, 2809-2816.	6.7	23
54	Catalytic cracking of fast and tail gas reactive pyrolysis bio-oils over HZSM-5. Fuel Processing Technology, 2017, 161, 132-138.	7.2	22

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55	Mild hydrotreating of bio-oils with varying oxygen content produced via catalytic fast pyrolysis. Fuel, 2019, 245, 360-367.	6.4	22
56	Catalytic Asymmetric Prins Cyclizations:â€‰ Cation Generation and Trapping with (BINAP)Pt Dications. Organic Letters, 2006, 8, 665-668.	4.6	21
57	Evaluation of the impact of compositional differences in switchgrass genotypes on pyrolysis product yield. Industrial Crops and Products, 2015, 74, 957-968.	5.2	21
58	Guayule (Parthenium argentatum) pyrolysis biorefining: Fuels and chemicals contributed from guayule leaves via tail gas reactive pyrolysis. Fuel, 2016, 163, 240-247.	6.4	20
59	Mobile demonstration unit for fast- and catalytic pyrolysis: The combustion reduction integrated pyrolysis system (CRIPS). Journal of Analytical and Applied Pyrolysis, 2019, 137, 185-194.	5.5	20
60	Pyrolysis Oil Combustion in a Horizontal Box Furnace with an Externally Mixed Nozzle. Energy & Fuels, 2016, 30, 4126-4136.	5.1	19
61	Aspen PlusÂ® and economic modeling of equine waste utilization forÂlocalized hot water heating via fast pyrolysis. Journal of Environmental Management, 2013, 128, 594-601.	7.8	18
62	Hydrocarbons from Spirulina Pyrolysis Bio-oil Using One-Step Hydrotreating and Aqueous Extraction of Heteroatom Compounds. Energy & Fuels, 2016, 30, 4925-4932.	5.1	17
63	Influence of upstream, distributed biomass-densifying technologies on the economics of biofuel production. Fuel, 2019, 249, 326-333.	6.4	17
64	Variability in pyrolysis product yield from novel shrub willow genotypes. Biomass and Bioenergy, 2015, 72, 74-84.	5.7	13
65	Flash Distillation of Bio-Oils for Simultaneous Production of Hydrocarbons and Green Coke. Industrial & Engineering Chemistry Research, 2019, 58, 1794-1802.	3.7	12
66	Progress on Biobased Industrial Carbons as Thermochemical Biorefinery Coproducts. Energy & Fuels, 2021, 35, 5627-5642.	5.1	12
67	Coprocessing of Agricultural Plastic Waste and Switchgrass via Tail Gas Reactive Pyrolysis. Industrial & Engineering Chemistry Research, 2015, 54, 9887-9893.	3.7	11
68	Stable Bio-oil Production from Proteinaceous Cyanobacteria: Tail Gas Reactive Pyrolysis of Spirulina. Industrial & Engineering Chemistry Research, 2016, 55, 6734-6741.	3.7	11
69	Co-cracking of bio-oil distillate bottoms with vacuum gas oil for enhanced production of light compounds. Journal of Analytical and Applied Pyrolysis, 2018, 132, 65-71.	5.5	11
70	Hydrocarbons Extracted from Advanced Pyrolysis Bio-Oils: Characterization and Refining. Energy & Fuels, 2020, 34, 483-490.	5.1	11
71	Production of Partially Deoxygenated Pyrolysis Oil from Switchgrass via Ca(OH)₂, CaO, and Ca(COOH)₂ Cofeeding. Energy & Fuels, 2020, 34, 12616-12625.	5.1	11
72	Evaluation of Biochars by Temperature Programmed Oxidation/Mass Spectrometry. BioResources, 2013, 8, .	1.0	11

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73	Prediction of Properties and Elemental Composition of Biomass Pyrolysis Oils by NMR and Partial Least Squares Analysis. Energy & Fuels, 2016, 30, 423-433.	5.1	10
74	Bioenergy crops grown for hyperaccumulation of phosphorous in the Delmarva Peninsula and their biofuels potential. Journal of Environmental Management, 2015, 150, 39-47.	7.8	9
75	Biobased n-Butanol Prepared from Poly-3-hydroxybutyrate: Optimization of the Reduction of n-Butyl Crotonate to n-Butanol. Organic Process Research and Development, 2015, 19, 710-714.	2.7	9
76	Depolymerization of Lignin via Co-pyrolysis with 1,4-Butanediol in a Microwave Reactor. ACS Sustainable Chemistry and Engineering, 2017, 5, 988-994.	6.7	9
77	Characterization of Biomass Pyrolysis Oils by Diffusion Ordered NMR Spectroscopy. ACS Sustainable Chemistry and Engineering, 2019, 7, 19951-19960.	6.7	8
78	Impact of Harvest Time and Cultivar on Conversion of Switchgrass to Bio-oils Via Fast Pyrolysis. Bioenergy Research, 2017, 10, 388-399.	3.9	7
79	Biocidal Activity of Fast Pyrolysis Biochar against Escherichia coli O157:H7 in Soil Varies Based on Production Temperature or Age of Biochar. Journal of Food Protection, 2020, 83, 1020-1029.	1.7	7
80	Continuous extraction of phenol and cresols from advanced pyrolysis oils. SN Applied Sciences, 2020, 2, 1.	2.9	6
81	A comparison of the solvent liquefaction of lignin in ethanol and 1,4-butanediol. Journal of Analytical and Applied Pyrolysis, 2022, 164, 105522.	5.5	5
82	Effluent Gas Flux Characterization during Pyrolysis of Chicken Manure. ACS Sustainable Chemistry and Engineering, 2017, 5, 7568-7575.	6.7	4
83	Application of Diffusion-Ordered NMR Spectroscopy to the Characterization of Sweet Sorghum Bagasse Lignin Isolated After Low Moisture Anhydrous Ammonia (LMAA) Pretreatment. Bioenergy Research, 0, , 1.	3.9	3
84	Biobased tar pitch produced from biomass pyrolysis oils. Fuel, 2022, 318, 123300.	6.4	3
85	Condensation of Acetol and Acetic Acid Vapor and Nitrogen Using Sprayed Aqueous Liquid. Industrial & Engineering Chemistry Research, 2012, 51, 5067-5072.	3.7	2
86	A Process Simulation of Guayule Biorefining, Including an Exergy Analysis. , 2016, , .		2
87	Identification of Unique Aldehyde Dimers in Sorghum Wax Recovered after Fermentation in a Commercial Fuel Ethanol Plant. JAOCS, Journal of the American Oil Chemists' Society, 2020, 97, 1299-1308.	1.9	1
88	Pyrolysis GC/MS analysis of improved guayule genotypes. Industrial Crops and Products, 2020, 155, 112810.	5.2	1