Akwasi A Boateng

List of Publications by Year
in descending order

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61 papers	4,341 citations	159585 30 h-index	144013 57 g-index
61 all docs	61 docs citations	61 times ranked	3947 citing authors

#	Article	IF	Citations
1	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
2	Catalytic pyrolysis-GC/MS of lignin from several sources. Fuel Processing Technology, 2010, 91, 1446-1458.	7.2	380
3	Biomass Yield and Biofuel Quality of Switchgrass Harvested in Fall or Spring. Agronomy Journal, 2006, 98, 1518-1525.	1.8	325
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	Bench-Scale Fluidized-Bed Pyrolysis of Switchgrass for Bio-Oil Productionâ€. Industrial & Engineering Chemistry Research, 2007, 46, 1891-1897.	3.7	239
7	H-ZSM5 Catalyzed Co-Pyrolysis of Biomass and Plastics. ACS Sustainable Chemistry and Engineering, 2014, 2, 301-311.	6.7	192
8	Distributed processing of biomass to bioâ€oil for subsequent production of Fischerâ€Tropsch liquids. Biofuels, Bioproducts and Biorefining, 2008, 2, 229-238.	3.7	155
9	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
10	Catalytic Fast Pyrolysis of White Oak Wood in a Bubbling Fluidized Bed. Energy & Fuels, 2011, 25, 5444-5451.	5.1	127
11	Overexpression of SbMyb60 impacts phenylpropanoid biosynthesis and alters secondary cell wall composition in Sorghum bicolor. Plant Journal, 2016, 85, 378-395.	5.7	119
12	Pyrolysis of forest residues: An approach to techno-economics for bio-fuel production. Fuel, 2017, 193, 477-484.	6.4	105
13	Production of Bio-oil from Alfalfa Stems by Fluidized-Bed Fast Pyrolysis. Industrial & Engineering Chemistry Research, 2008, 47, 4115-4122.	3.7	100
14	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
15	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
16	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
17	Production of Deoxygenated Biomass Fast Pyrolysis Oils via Product Gas Recycling. Energy & Fuels, 2013, 27, 3867-3874.	5.1	74
18	Production and Analysis of Fast Pyrolysis Oils from Proteinaceous Biomass. Bioenergy Research, 2011, 4, 303-311.	3.9	63

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19	Pyrolysis of Broiler Manure: Char and Product Gas Characterization. Industrial & Engineering Chemistry Research, 2009, 48, 1292-1297.	3.7	58
20	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
21	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
22	Aromatic Hydrocarbon Production from Eucalyptus urophylla Pyrolysis over Several Metalâ€Modified ZSMâ€5 Catalysts. Energy Technology, 2017, 5, 196-204.	3.8	53
23	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
24	Characterizing Biomass Fast Pyrolysis Oils by ¹³C NMR and Chemometric Analysis. Energy & Fuels, 2011, 25, 5452-5461.	5.1	49
25	Life Cycle Environmental and Economic Tradeoffs of Using Fast Pyrolysis Products for Power Generation. Energy & Fuels, 2013, 27, 2578-2587.	5.1	48
26	Upgrading of bio-oil distillation bottoms into biorenewable calcined coke. Biomass and Bioenergy, 2015, 81, 415-423.	5.7	43
27	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
28	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
29	Effects of hot water extraction pretreatment on pyrolysis of shrub willow. Biomass and Bioenergy, 2017, 107, 299-304.	5.7	32
30	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
31	Hydrotreating of fast pyrolysis oils from protein-rich pennycress seed presscake. Fuel, 2013, 111, 797-804.	6.4	29
32	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
33	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
34	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
35	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
36	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

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37	Packed-Bed Catalytic Cracking of Oak-Derived Pyrolytic Vapors. Industrial & Engineering Chemistry Research, 2011, 50, 13304-13312.	3.7	23
38	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
39	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
40	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
41	Bio-oil hydrodeoxygenation catalysts produced using strong electrostatic adsorption. Fuel, 2017, 207, 510-521.	6.4	20
42	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
43	Pyrolysis Oil Combustion in a Horizontal Box Furnace with an Externally Mixed Nozzle. Energy & Fuels, 2016, 30, 4126-4136.	5.1	19
44	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
45	Renewable Biomass-Derived Coke with Texture Suitable for Aluminum Smelting Anodes. ACS Sustainable Chemistry and Engineering, 2018, 6, 13324-13331.	6.7	18
46	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
47	Flash Distillation of Bio-Oils for Simultaneous Production of Hydrocarbons and Green Coke. Industrial & Engineering Chemistry Research, 2019, 58, 1794-1802.	3.7	12
48	Stable Bio-oil Production from Proteinaceous Cyanobacteria: Tail Gas Reactive Pyrolysis of Spirulina. Industrial & Engineering Chemistry Research, 2016, 55, 6734-6741.	3.7	11
49	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
50	Hydrocarbons Extracted from Advanced Pyrolysis Bio-Oils: Characterization and Refining. Energy & Fuels, 2020, 34, 483-490.	5.1	11
51	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
52	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
53	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
54	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

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55	Continuous extraction of phenol and cresols from advanced pyrolysis oils. SN Applied Sciences, 2020, 2, 1.	2.9	6
56	Effect of pretreatment on pyrolysis products of Pennisetum purpureum Schum. by Py-GC/MS. Journal of Thermal Analysis and Calorimetry, 2022, 147, 6655-6663.	3.6	5
57	Mineral nutrient recovery from pyrolysis systems. Environmental Progress and Sustainable Energy, 2012, 31, 251-255.	2.3	4
58	Condensed-phase pyrolysis oil upgrading. , 2020, , 119-147.		1
59	Reactive pyrolysis. , 2020, , 83-118.		0
60	Pyrolysis solid coproducts and usage. , 2020, , 239-257.		0
61	Biorefinery performance measurements. , 2020, , 191-220.		0