

Akwasi A Boateng

List of Publications by Year in descending order

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61
papers

4,341
citations

159525

30
h-index

143943

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61
all docs

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docs citations

61
times ranked

3947
citing authors

#	ARTICLE	IF	CITATIONS
1	Screening acidic zeolites for catalytic fast pyrolysis of biomass and its components. <i>Journal of Analytical and Applied Pyrolysis</i> , 2011, 92, 224-232.	2.6	454
2	Catalytic pyrolysis-GC/MS of lignin from several sources. <i>Fuel Processing Technology</i> , 2010, 91, 1446-1458.	3.7	380
3	Biomass Yield and Biofuel Quality of Switchgrass Harvested in Fall or Spring. <i>Agronomy Journal</i> , 2006, 98, 1518-1525.	0.9	325
4	Chemical Composition of Bio-oils Produced by Fast Pyrolysis of Two Energy Crops. <i>Energy & Fuels</i> , 2008, 22, 2104-2109.	2.5	322
5	Characterization of Various Fast-Pyrolysis Bio-Oils by NMR Spectroscopy. <i>Energy & Fuels</i> , 2009, 23, 2707-2718.	2.5	297
6	Bench-Scale Fluidized-Bed Pyrolysis of Switchgrass for Bio-Oil Production. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 1891-1897.	1.8	239
7	H-ZSM5 Catalyzed Co-Pyrolysis of Biomass and Plastics. <i>ACS Sustainable Chemistry and Engineering</i> , 2014, 2, 301-311.	3.2	192
8	Distributed processing of biomass to bio-oil for subsequent production of Fischer-Tropsch liquids. <i>Biofuels, Bioproducts and Biorefining</i> , 2008, 2, 229-238.	1.9	155
9	Production of Aromatic Hydrocarbons via Catalytic Pyrolysis of Biomass over Fe-Modified HZSM-5 Zeolites. <i>ACS Sustainable Chemistry and Engineering</i> , 2015, 3, 1623-1631.	3.2	141
10	Catalytic Fast Pyrolysis of White Oak Wood in a Bubbling Fluidized Bed. <i>Energy & Fuels</i> , 2011, 25, 5444-5451.	2.5	127
11	Overexpression of <i>SbMyb60</i> impacts phenylpropanoid biosynthesis and alters secondary cell wall composition in <i>Sorghum bicolor</i> . <i>Plant Journal</i> , 2016, 85, 378-395.	2.8	119
12	Pyrolysis of forest residues: An approach to techno-economics for bio-fuel production. <i>Fuel</i> , 2017, 193, 477-484.	3.4	105
13	Production of Bio-oil from Alfalfa Stems by Fluidized-Bed Fast Pyrolysis. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 4115-4122.	1.8	100
14	Accumulation of Inorganic Impurities on HZSM-5 Zeolites during Catalytic Fast Pyrolysis of Switchgrass. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 17156-17161.	1.8	87
15	Catalytic co-pyrolysis of switchgrass and polyethylene over HZSM-5: Catalyst deactivation and coke formation. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 129, 195-203.	2.6	81
16	Distillation and Isolation of Commodity Chemicals from Bio-Oil Made by Tail-Gas Reactive Pyrolysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2014, 2, 2042-2052.	3.2	80
17	Production of Deoxygenated Biomass Fast Pyrolysis Oils via Product Gas Recycling. <i>Energy & Fuels</i> , 2013, 27, 3867-3874.	2.5	74
18	Production and Analysis of Fast Pyrolysis Oils from Proteinaceous Biomass. <i>Bioenergy Research</i> , 2011, 4, 303-311.	2.2	63

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19	Pyrolysis of Broiler Manure: Char and Product Gas Characterization. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 1292-1297.	1.8	58
20	Role of Potassium Exchange in Catalytic Pyrolysis of Biomass over ZSM-5: Formation of Alkyl Phenols and Furans. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 2154-2162.	3.2	58
21	Mass Balance, Energy, and Exergy Analysis of Bio-Oil Production by Fast Pyrolysis. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2012, 134, .	1.4	55
22	Aromatic Hydrocarbon Production from <i>Eucalyptus urophylla</i> Pyrolysis over Several Metal-Modified ZSM-5 Catalysts. <i>Energy Technology</i> , 2017, 5, 196-204.	1.8	53
23	Sustainable production of bioenergy and biochar from the straw of high-biomass soybean lines via fast pyrolysis. <i>Environmental Progress and Sustainable Energy</i> , 2010, 29, 175-183.	1.3	51
24	Characterizing Biomass Fast Pyrolysis Oils by ¹³ C NMR and Chemometric Analysis. <i>Energy & Fuels</i> , 2011, 25, 5452-5461.	2.5	49
25	Life Cycle Environmental and Economic Tradeoffs of Using Fast Pyrolysis Products for Power Generation. <i>Energy & Fuels</i> , 2013, 27, 2578-2587.	2.5	48
26	Upgrading of bio-oil distillation bottoms into biorenewable calcined coke. <i>Biomass and Bioenergy</i> , 2015, 81, 415-423.	2.9	43
27	Structure-Property Characteristics of Pyrolytic Lignins Derived from Fast Pyrolysis of a Lignin Rich Biomass Extract. <i>ACS Sustainable Chemistry and Engineering</i> , 2013, 1, 260-267.	3.2	36
28	Fluidized Bed Catalytic Pyrolysis of Eucalyptus over HZSM-5: Effect of Acid Density and Gallium Modification on Catalyst Deactivation. <i>Energy & Fuels</i> , 2018, 32, 1771-1778.	2.5	34
29	Effects of hot water extraction pretreatment on pyrolysis of shrub willow. <i>Biomass and Bioenergy</i> , 2017, 107, 299-304.	2.9	32
30	Biological Mineral Range Effects on Biomass Conversion to Aromatic Hydrocarbons via Catalytic Fast Pyrolysis over HZSM-5. <i>Energy & Fuels</i> , 2014, 28, 7014-7024.	2.5	31
31	Hydrotreating of fast pyrolysis oils from protein-rich pennycress seed presscake. <i>Fuel</i> , 2013, 111, 797-804.	3.4	29
32	Effects of Various Reactive Gas Atmospheres on the Properties of Bio-Oils Produced Using Microwave Pyrolysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 930-936.	3.2	26
33	Mild pyrolysis of P3HB/switchgrass blends for the production of bio-oil enriched with crotonic acid. <i>Journal of Analytical and Applied Pyrolysis</i> , 2014, 107, 40-45.	2.6	25
34	Guayule (<i>Parthenium argentatum</i>) pyrolysis biorefining: Production of hydrocarbon compatible bio-oils from guayule bagasse via tail-gas reactive pyrolysis. <i>Fuel</i> , 2015, 158, 948-956.	3.4	25
35	Fuels and Chemicals from Equine-Waste-Derived Tail Gas Reactive Pyrolysis Oil: Technoeconomic Analysis, Environmental and Exergetic Life Cycle Assessment. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 8804-8814.	3.2	25
36	Techno-economic analysis of guayule (<i>Parthenium argentatum</i>) pyrolysis biorefining: Production of biofuels from guayule bagasse via tail-gas reactive pyrolysis. <i>Industrial Crops and Products</i> , 2018, 112, 82-89.	2.5	25

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37	Packed-Bed Catalytic Cracking of Oak-Derived Pyrolytic Vapors. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 13304-13312.	1.8	23
38	Exergy Based Assessment of the Production and Conversion of Switchgrass, Equine Waste, and Forest Residue to Bio-Oil Using Fast Pyrolysis. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 529-539.	1.8	23
39	Aqueous Extractive Upgrading of Bio-Oils Created by Tail-Gas Reactive Pyrolysis To Produce Pure Hydrocarbons and Phenols. <i>ACS Sustainable Chemistry and Engineering</i> , 2015, 3, 2809-2816.	3.2	23
40	Evaluation of the impact of compositional differences in switchgrass genotypes on pyrolysis product yield. <i>Industrial Crops and Products</i> , 2015, 74, 957-968.	2.5	21
41	Bio-oil hydrodeoxygenation catalysts produced using strong electrostatic adsorption. <i>Fuel</i> , 2017, 207, 510-521.	3.4	20
42	Mobile demonstration unit for fast- and catalytic pyrolysis: The combustion reduction integrated pyrolysis system (CRIPS). <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 137, 185-194.	2.6	20
43	Pyrolysis Oil Combustion in a Horizontal Box Furnace with an Externally Mixed Nozzle. <i>Energy & Fuels</i> , 2016, 30, 4126-4136.	2.5	19
44	Aspen Plus® and economic modeling of equine waste utilization for localized hot water heating via fast pyrolysis. <i>Journal of Environmental Management</i> , 2013, 128, 594-601.	3.8	18
45	Renewable Biomass-Derived Coke with Texture Suitable for Aluminum Smelting Anodes. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 13324-13331.	3.2	18
46	Hydrocarbons from Spirulina Pyrolysis Bio-oil Using One-Step Hydrotreating and Aqueous Extraction of Heteroatom Compounds. <i>Energy & Fuels</i> , 2016, 30, 4925-4932.	2.5	17
47	Flash Distillation of Bio-Oils for Simultaneous Production of Hydrocarbons and Green Coke. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 1794-1802.	1.8	12
48	Stable Bio-oil Production from Proteinaceous Cyanobacteria: Tail Gas Reactive Pyrolysis of Spirulina. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 6734-6741.	1.8	11
49	Co-cracking of bio-oil distillate bottoms with vacuum gas oil for enhanced production of light compounds. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 132, 65-71.	2.6	11
50	Hydrocarbons Extracted from Advanced Pyrolysis Bio-Oils: Characterization and Refining. <i>Energy & Fuels</i> , 2020, 34, 483-490.	2.5	11
51	Bioenergy crops grown for hyperaccumulation of phosphorous in the Delmarva Peninsula and their biofuels potential. <i>Journal of Environmental Management</i> , 2015, 150, 39-47.	3.8	9
52	Biobased n-Butanol Prepared from Poly-3-hydroxybutyrate: Optimization of the Reduction of n-Butyl Crotonate to n-Butanol. <i>Organic Process Research and Development</i> , 2015, 19, 710-714.	1.3	9
53	Depolymerization of Lignin via Co-pyrolysis with 1,4-Butanediol in a Microwave Reactor. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 988-994.	3.2	9
54	Biocidal Activity of Fast Pyrolysis Biochar against Escherichia coli O157:H7 in Soil Varies Based on Production Temperature or Age of Biochar. <i>Journal of Food Protection</i> , 2020, 83, 1020-1029.	0.8	7

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55	Continuous extraction of phenol and cresols from advanced pyrolysis oils. SN Applied Sciences, 2020, 2, 1.	1.5	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.	2.0	5
57	Mineral nutrient recovery from pyrolysis systems. Environmental Progress and Sustainable Energy, 2012, 31, 251-255.	1.3	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