Haiping Yang

List of Publications by Year
in descending order

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Version: 2024-02-01

135 papers	17,107 citations	25014 57 h-index	14736 127 g-index
137 all docs	137 docs citations	137 times ranked	12596 citing authors

#	Article	IF	Citations
1	Characteristics of hemicellulose, cellulose and lignin pyrolysis. Fuel, 2007, 86, 1781-1788.	3.4	5,828
2	Lignocellulosic biomass pyrolysis mechanism: A state-of-the-art review. Progress in Energy and Combustion Science, 2017, 62, 33-86.	15.8	1,748
3	In-Depth Investigation of Biomass Pyrolysis Based on Three Major Components:â€‰ Hemicellulose, Cellulose and Lignin. Energy & Fuels, 2006, 20, 388-393.	2.5	919
4	Biomass-based pyrolytic polygeneration system on cotton stalk pyrolysis: Influence of temperature. Bioresource Technology, 2012, 107, 411-418.	4.8	358
5	Recent developments in lignocellulosic biomass catalytic fast pyrolysis: Strategies for the optimization of bio-oil quality and yield. Fuel Processing Technology, 2019, 196, 106180.	3.7	318
6	Transformation of Nitrogen and Evolution of N-Containing Species during Algae Pyrolysis. Environmental Science & Technology, 2017, 51, 6570-6579.	4.6	272
7	A Review of Recent Advances in Biomass Pyrolysis. Energy & Fuels, 2020, 34, 15557-15578.	2.5	256
8	Insight into KOH activation mechanism during biomass pyrolysis: Chemical reactions between O-containing groups and KOH. Applied Energy, 2020, 278, 115730.	5.1	222
9	Hydrogen production from biomass gasification using biochar as a catalyst/support. Bioresource Technology, 2016, 216, 159-164.	4.8	215
10	The structure evolution of biochar from biomass pyrolysis and its correlation with gas pollutant adsorption performance. Bioresource Technology, 2017, 246, 101-109.	4.8	207
11	Fast pyrolysis of cotton stalk biomass using calcium oxide. Bioresource Technology, 2017, 233, 15-20.	4.8	166
12	Co-pyrolysis of lignocellulosic biomass and microalgae: Products characteristics and interaction effect. Bioresource Technology, 2017, 245, 860-868.	4.8	157
13	Mechanism of Palm Oil Waste Pyrolysis in a Packed Bed. Energy & Fuels, 2006, 20, 1321-1328.	2.5	149
14	Investigation on biomass nitrogen-enriched pyrolysis: Influence of temperature. Bioresource Technology, 2018, 249, 247-253.	4.8	138
15	Bioenergy in China: Evaluation of domestic biomass resources and the associated greenhouse gas mitigation potentials. Renewable and Sustainable Energy Reviews, 2020, 127, 109842.	8.2	136
16	Biomass pyrolysis for nitrogen-containing liquid chemicals and nitrogen-doped carbon materials. Journal of Analytical and Applied Pyrolysis, 2016, 120, 186-193.	2.6	135
17	Fusion and transformation properties of the inorganic components in biomass ash. Fuel, 2014, 117, 1281-1287.	3.4	132
18	Chemical structure evolution of char during the pyrolysis of cellulose. Journal of Analytical and Applied Pyrolysis, 2015, 116, 263-271.	2.6	132

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19	Influence of physicochemical properties of metal modified ZSM-5 catalyst on benzene, toluene and xylene production from biomass catalytic pyrolysis. Bioresource Technology, 2019, 278, 248-254.	4.8	127
20	Torrefaction of agriculture straws and its application on biomass pyrolysis poly-generation. Bioresource Technology, 2014, 156, 70-77.	4.8	124
21	Evolution of functional groups and pore structure during cotton and corn stalks torrefaction and its correlation with hydrophobicity. Fuel, 2014, 137, 41-49.	3.4	118
22	Mechanism of biomass activation and ammonia modification for nitrogen-doped porous carbon materials. Bioresource Technology, 2019, 280, 260-268.	4.8	113
23	Biomass-Based Pyrolytic Polygeneration System for Bamboo Industry Waste: Evolution of the Char Structure and the Pyrolysis Mechanism. Energy & Fuels, 2016, 30, 6430-6439.	2.5	112
24	Catalytic deoxygenation co-pyrolysis of bamboo wastes and microalgae with biochar catalyst. Energy, 2018, 157, 472-482.	4.5	110
25	Pyrolysis-catalysis of different waste plastics over Fe/Al2O3 catalyst: High-value hydrogen, liquid fuels, carbon nanotubes and possible reaction mechanisms. Energy Conversion and Management, 2021, 229, 113794.	4.4	105
26	Algae pyrolytic poly-generation: Influence of component difference and temperature on products characteristics. Energy, 2017, 131, 1-12.	4.5	103
27	Thermal behavior and reaction kinetics analysis of pyrolysis and subsequent in-situ gasification of torrefied biomass pellets. Energy Conversion and Management, 2018, 161, 205-214.	4.4	103
28	Investigation on co-pyrolysis of lignocellulosic biomass and amino acids using TG-FTIR and Py-GC/MS. Energy Conversion and Management, 2019, 196, 320-329.	4.4	103
29	Co-pyrolysis of microalgae and plastic: Characteristics and interaction effects. Bioresource Technology, 2019, 274, 145-152.	4.8	102
30	Synthesis and characterization of magnesium oxide nanoparticle-containing biochar composites for efficient phosphorus removal from aqueous solution. Chemosphere, 2020, 247, 125847.	4.2	102
31	Pyrolysis characteristics of lignocellulosic biomass components in the presence of CaO. Bioresource Technology, 2019, 287, 121493.	4.8	101
32	Influence of Biochar Addition on Nitrogen Transformation during Copyrolysis of Algae and Lignocellulosic Biomass. Environmental Science & Technology, 2018, 52, 9514-9521.	4.6	100
33	Effects of Fe-, Zr-, and Co-Modified Zeolites and Pretreatments on Catalytic Upgrading of Biomass Fast Pyrolysis Vapors. Energy & Fuels, 2016, 30, 3004-3013.	2.5	97
34	Effect of catalysts on the reactivity and structure evolution of char in petroleum coke steam gasification. Fuel, 2014, 117, 1174-1180.	3.4	96
35	Assessment of pyrolysis polygeneration of biomass based on major components: Product characterization and elucidation of degradation pathways. Fuel, 2013, 113, 266-273.	3.4	88
36	The densification of bio-char: Effect of pyrolysis temperature on the qualities of pellets. Bioresource Technology, 2016, 200, 521-527.	4.8	88

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37	Hydrogen production from agricultural biomass wastes gasification in a fluidized bed with calcium oxide enhancing. International Journal of Hydrogen Energy, 2017, 42, 4832-4839.	3.8	87
38	Prediction of Bio-oil Yield and Hydrogen Contents Based on Machine Learning Method: Effect of Biomass Compositions and Pyrolysis Conditions. Energy & Fuels, 2020, 34, 11050-11060.	2.5	86
39	A comparative study of machine learning methods for bio-oil yield prediction â€“ A genetic algorithm-based features selection. Bioresource Technology, 2021, 335, 125292.	4.8	82
40	Characteristics and evolution of heavy components in bio-oil from the pyrolysis of cellulose, hemicellulose and lignin. Renewable and Sustainable Energy Reviews, 2022, 157, 111989.	8.2	82
41	Effects of hydrofluoric acid pre-deashing of rice husk on physicochemical properties and CO2 adsorption performance of nitrogen-enriched biochar. Energy, 2015, 91, 903-910.	4.5	79
42	NO x precursors from biomass pyrolysis: Distribution of amino acids in biomass and Tar-N during devolatilization using model compounds. Fuel, 2017, 187, 367-375.	3.4	79
43	Aromatics production with metal oxides and ZSM-5 as catalysts in catalytic pyrolysis of wood sawdust. Fuel Processing Technology, 2019, 188, 146-152.	3.7	78
44	Influence of NH3 concentration on biomass nitrogen-enriched pyrolysis. Bioresource Technology, 2018, 263, 350-357.	4.8	74
45	Molten salt pyrolysis of biomass: The mechanism of volatile reforming and pyrolysis. Energy, 2020, 213, 118801.	4.5	74
46	Absorption-enhanced steam gasification of biomass for hydrogen production: Effect of calcium oxide addition on steam gasification of pyrolytic volatiles. International Journal of Hydrogen Energy, 2014, 39, 15416-15423.	3.8	71
47	Conversion of lignin into light olefins and aromatics over Fe/ZSM-5 catalytic fast pyrolysis: Significance of Fe contents and temperature. Journal of Analytical and Applied Pyrolysis, 2019, 137, 259-265.	2.6	70
48	Application of biomass pyrolytic polygeneration technology using retort reactors. Bioresource Technology, 2016, 200, 64-71.	4.8	69
49	Comparative study of wet and dry torrefaction of corn stalk and the effect on biomass pyrolysis polygeneration. Bioresource Technology, 2018, 258, 88-97.	4.8	67
50	A new insight of lignin pyrolysis mechanism based on functional group evolutions of solid char. Fuel, 2021, 288, 119719.	3.4	67
51	Role of porous structure and active O-containing groups of activated biochar catalyst during biomass catalytic pyrolysis. Energy, 2020, 210, 118646.	4.5	66
52	Tuning the atomic configuration of Co-N-C electrocatalyst enables highly-selective H2O2 production in acidic media. Applied Catalysis B: Environmental, 2022, 310, 121312.	10.8	64
53	Hemicellulose pyrolysis mechanism based on functional group evolutions by two-dimensional perturbation correlation infrared spectroscopy. Fuel, 2020, 267, 117302.	3.4	63
54	Catalytic fast pyrolysis of biomass to produce furfural using heterogeneous catalysts. Journal of Analytical and Applied Pyrolysis, 2017, 127, 292-298.	2.6	62

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55	Co-pyrolysis of microalgae with low-density polyethylene (LDPE) for deoxygenation and denitrification. Bioresource Technology, 2020, 311, 123502.	4.8	62
56	Absorption-enhanced steam gasification of biomass for hydrogen production: Effects of calcium-based absorbents and NiO-based catalysts on corn stalk pyrolysis-gasification. International Journal of Hydrogen Energy, 2017, 42, 5840-5848.	3.8	61
57	Preparation of mesoporous ZSM-5 catalysts using green templates and their performance in biomass catalytic pyrolysis. Bioresource Technology, 2019, 289, 121729.	4.8	61
58	Plasma reforming of biomass gasification tars using mixed naphthalene and toluene as model compounds. Energy Conversion and Management, 2019, 195, 409-419.	4.4	61
59	Enhancing the production of light olefins and aromatics from catalytic fast pyrolysis of cellulose in a dual-catalyst fixed bed reactor. Bioresource Technology, 2019, 273, 77-85.	4.8	61
60	Characteristics of Particulate Matter Emitted from Agricultural Biomass Combustion. Energy & Fuels, 2017, 31, 7493-7501.	2.5	57
61	Effects of potassium salts loading on calcium oxide on the hydrogen production from pyrolysis-gasification of biomass. Bioresource Technology, 2018, 249, 744-750.	4.8	56
62	Hydrogen production from cellulose catalytic gasification on CeO2/Fe2O3 catalyst. Energy Conversion and Management, 2018, 171, 241-248.	4.4	55
63	Comprehensive mechanism of initial stage for lignin pyrolysis. Combustion and Flame, 2020, 215, 1-9.	2.8	54
64	Correlation of Feedstock and Bio-oil Compound Distribution. Energy & Fuels, 2017, 31, 7093-7100.	2.5	53
65	Generalized two-dimensional correlation infrared spectroscopy to reveal the mechanisms of lignocellulosic biomass pyrolysis. Proceedings of the Combustion Institute, 2019, 37, 3013-3021.	2.4	53
66	Solar pyrolysis of cotton stalk in molten salt for bio-fuel production. Energy, 2019, 179, 1124-1132.	4.5	53
67	Effect of minerals and binders on particulate matter emission from biomass pellets combustion. Applied Energy, 2018, 215, 106-115.	5.1	52
68	The conversion of biomass to light olefins on Fe-modified ZSM-5 catalyst: Effect of pyrolysis parameters. Science of the Total Environment, 2018, 628-629, 350-357.	3.9	52
69	Plasma reforming of naphthalene as a tar model compound of biomass gasification. Energy Conversion and Management, 2019, 187, 593-604.	4.4	52
70	Investigation of the pyrolysis characteristics of guaiacol lignin using combined Py-GCâ€Ã—â€GC/TOF-MS and in-situ FTIR. Fuel, 2019, 251, 496-505.	3.4	51
71	Effect of Carboxymethyl Cellulose Binder on the Quality of Biomass Pellets. Energy & Fuels, 2016, 30, 5799-5808.	2.5	50
72	Biomass Pyrolytic Polygeneration of Tobacco Waste: Product Characteristics and Nitrogen Transformation. Energy & Fuels, 2016, 30, 1579-1588.	2.5	48

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73	The effect of combined pretreatments on the pyrolysis of corn stalk. Bioresource Technology, 2019, 281, 309-317.	4.8	48
74	Generalized two-dimensional correlation infrared spectroscopy to reveal mechanisms of CO2 capture in nitrogen enriched biochar. Proceedings of the Combustion Institute, 2017, 36, 3933-3940.	2.4	45
75	The enhancing mechanism of calcium oxide on water gas shift reaction for hydrogen production. Energy, 2014, 68, 248-254.	4.5	44
76	Enhanced reforming of mixed biomass tar model compounds using a hybrid gliding arc plasma catalytic process. Catalysis Today, 2019, 337, 225-233.	2.2	42
77	Pyrolytic characteristics of hemicellulose, cellulose and lignin under CO2 atmosphere. Fuel, 2019, 256, 115890.	3.4	41
78	Plasma reforming of tar model compound in a rotating gliding arc reactor: Understanding the effects of CO2 and H2O addition. Fuel, 2020, 259, 116271.	3.4	41
79	Effect of Torrefaction on Properties of Pellets Produced from Woody Biomass. Energy & Fuels, 2020, 34, 15343-15354.	2.5	40
80	Evolution of char structure during mengdong coal pyrolysis: Influence of temperature and K 2 CO 3. Fuel Processing Technology, 2017, 159, 178-186.	3.7	39
81	Cellulose Pyrolysis Mechanism Based on Functional Group Evolutions by Two-Dimensional Perturbation Correlation Infrared Spectroscopy. Energy & Fuels, 2020, 34, 3412-3421.	2.5	39
82	Characteristics and Evolution of Nitrogen in the Heavy Components of Algae Pyrolysis Bio-Oil. Environmental Science & Technology, 2021, 55, 6373-6385.	4.6	39
83	Tuning Coal into Graphene-Like Nanocarbon for Electrochemical H₂O₂ Production with Nearly 100% Faraday Efficiency. ACS Sustainable Chemistry and Engineering, 2021, 9, 9369-9375.	3.2	37
84	Organic salt-assisted pyrolysis for preparation of porous carbon from cellulose, hemicellulose and lignin: New insight from structure evolution. Fuel, 2021, 291, 120185.	3.4	36
85	Insight into the formation mechanism of N, P co-doped mesoporous biochar from H3PO4 activation and NH3 modification of biomass. Fuel Processing Technology, 2022, 230, 107215.	3.7	35
86	Molten salt pyrolysis of biomass: The evaluation of molten salt. Fuel, 2021, 302, 121103.	3.4	34
87	Influence of torrefaction with Mg-based additives on the pyrolysis of cotton stalk. Bioresource Technology, 2018, 261, 62-69.	4.8	31
88	The new insight about mechanism of the influence of K2CO3 on cellulose pyrolysis. Fuel, 2021, 295, 120617.	3.4	31
89	Catalytic Upgrading of Fast Pyrolysis Products with Fe-, Zr-, and Co-Modified Zeolites Based on Pyrolyzerâ€“GC/MS Analysis. Energy & Fuels, 2017, 31, 3979-3986.	2.5	30
90	Effect of sodium carboxymethyl cellulose addition on particulate matter emissions during biomass pellet combustion. Applied Energy, 2018, 230, 925-934.	5.1	30

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91	Coal and biomass co-pyrolysis in a fluidized-bed reactor: Numerical assessment of fuel type and blending conditions. Fuel, 2020, 275, 118004.	3.4	29
92	Ash Fusion Characteristics and Transformation Behaviors during Bamboo Combustion in Comparison with Straw and Poplar. Energy & Fuels, 2018, 32, 5244-5251.	2.5	27
93	Preparation of low-nitrogen and high-quality bio-oil from microalgae catalytic pyrolysis with zeolites and activated carbon. Journal of Analytical and Applied Pyrolysis, 2021, 159, 105182.	2.6	27
94	Characterization of Hydrochar Pellets from Hydrothermal Carbonization of Agricultural Residues. Energy & Fuels, 2018, 32, 11538-11546.	2.5	26
95	Effects of Combined Torrefaction and Pelletization on Particulate Matter Emission from Biomass Pellet Combustion. Energy & Fuels, 2019, 33, 8777-8785.	2.5	26
96	Effect of Heavy Metals in the Performance of Anaerobic Digestion of Olive Mill Waste. Processes, 2020, 8, 1146.	1.3	26
97	Mitigation of ultrafine particulate matter emission from agricultural biomass pellet combustion by the additive of phosphoric acid modified kaolin. Renewable Energy, 2021, 172, 177-187.	4.3	26
98	Physicochemical properties and hygroscopicity of tobacco stem biochar pyrolyzed at different temperatures. Journal of Renewable and Sustainable Energy, 2016, 8, .	0.8	23
99	Lignin Characterization and Catalytic Pyrolysis for Phenol-Rich Oil with TiO₂-Based Catalysts. Energy & Fuels, 2019, 33, 9934-9941.	2.5	23
100	Effect of oxidative torrefaction on particulate matter emission from agricultural biomass pellet combustion in comparison with non-oxidative torrefaction. Renewable Energy, 2022, 189, 39-51.	4.3	23
101	Influence of additives on lignin agglomeration and pyrolysis behavior. Fuel, 2020, 263, 116629.	3.4	22
102	The influence of CO2 on biomass fast pyrolysis at medium temperatures. Journal of Renewable and Sustainable Energy, 2018, 10, .	0.8	21
103	A new insight into chemical reactions between biomass and alkaline additives during pyrolysis process. Proceedings of the Combustion Institute, 2021, 38, 3881-3890.	2.4	21
104	Influence of Inherent Silicon and Metals in Rice Husk on the Char Properties and Associated Silica Structure. Energy & Fuels, 2015, 29, 7327-7334.	2.5	20
105	Catalytic mechanisms of potassium salts on pyrolysis of Î²-O-4 type lignin model polymer based on DFT study. Proceedings of the Combustion Institute, 2021, 38, 3969-3976.	2.4	20
106	Application of Carbon Nanotubes from Waste Plastics As Filler to Epoxy Resin Composite. ACS Sustainable Chemistry and Engineering, 2022, 10, 2204-2213.	3.2	20
107	Influence of Biochar on the Steam Reforming of Biomass Volatiles: Effects of Activation Temperature and Atmosphere. Energy & Fuels, 2019, 33, 2328-2334.	2.5	19
108	Reaction kinetics, mechanism, and product analysis of the iron catalytic graphitization of cellulose. Journal of Cleaner Production, 2021, 329, 129735.	4.6	19

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109	Experiment and Modeling Study of Glucose Pyrolysis: Formation of 3-Hydroxy-Î³-butyrolactone and 3-(2H)-Furanone. Energy & Fuels, 2018, 32, 9519-9529.	2.5	18
110	Catalytic Pyrolysis of Biomass to Produce Aromatic Hydrocarbons over Calcined Dolomite and ZSM-5. Energy & Fuels, 2021, 35, 16629-16636.	2.5	18
111	P-Based Additive for Reducing Fine Particulate Matter Emissions during Agricultural Biomass Combustion. Energy & Fuels, 2019, 33, 11274-11284.	2.5	17
112	Impact of cellulose deoxidization temperature on the composition of liquid products obtained by subsequent pyrolysis. Fuel Processing Technology, 2019, 184, 73-79.	3.7	17
113	Effects of cellulose-lignin interaction on the evolution of biomass pyrolysis bio-oil heavy components. Fuel, 2022, 323, 124413.	3.4	17
114	Reduction of fine particulate matter emissions from cornstalk combustion by calcium phosphates additives. Fuel, 2021, 283, 119303.	3.4	16
115	Effect of Mesopores in ZSM-5 on the Catalytic Conversion of Acetic Acid, Furfural, and Guaiacol. Energy & Fuels, 2021, 35, 6022-6029.	2.5	16
116	Influence of Addition of a High Amount of Calcium Oxide on the Yields of Pyrolysis Products and Noncondensable Gas Evolving during Corn Stalk Pyrolysis. Energy & Fuels, 2017, 31, 13705-13712.	2.5	15
117	Enhancing the Production of Light Olefins from Wheat Straw with Modified HZSM-5 Catalytic Pyrolysis. Energy & Fuels, 2019, 33, 11263-11273.	2.5	15
118	Two-Dimensional Perturbation Correlation Infrared Spectroscopy for Probing Pyrolysis of Biomass: Fundamentals, Applications, and Mechanistic Understanding. Energy & Fuels, 2020, 34, 9154-9174.	2.5	15
119	Effects of P-based additives on agricultural biomass torrefaction and particulate matter emissions from fuel combustion. Renewable Energy, 2022, 190, 66-77.	4.3	15
120	Solar pyrolysis of biomass - part I: Volatile evolution mechanism. Energy Conversion and Management, 2022, 267, 115951.	4.4	15
121	Co-gasification of petroleum coke with coal at high temperature: Effects of blending ratio and the catalyst. Fuel, 2022, 307, 121863.	3.4	14
122	Effect of phosphorus-based additives on the sintering characteristics of cornstalk ash. Journal of the Energy Institute, 2021, 97, 37-47.	2.7	13
123	Thermal decomposition pathways of phenylalanine and glutamic acid and the interaction mechanism between the two amino acids and glucose. Fuel, 2022, 324, 124345.	3.4	13
124	Effects of Temperature and Mg-Based Additives on Properties of Cotton Stalk Torrefaction Products. Energy & Fuels, 2018, 32, 9640-9649.	2.5	12
125	Hydrothermal Treatment of High Ash Microalgae: Focusing on the Physicochemical and Combustion Properties of Hydrochars. Energy & Fuels, 2020, 34, 1929-1939.	2.5	10
126	Integrated gasification and non-thermal plasma-catalysis system for cleaner syngas production from cellulose. IOP SciNotes, 2020, 1, 024001.	0.4	9

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127	Catalytic pyrolysis of cellulose with sulfonated carbon catalyst to produce levoglucosenone. Fuel Processing Technology, 2022, 234, 107323.	3.7	9
128	Influence of calcination temperature on calcined carbide slag assisted biomass pyrolysis. Fuel Processing Technology, 2022, 234, 107339.	3.7	9
129	Virtual Special Issue of Recent Research Advances in China: Thermochemical Processing of Biomass and Solid Wastes. Energy & Fuels, 2021, 35, 1885-1889.	2.5	6
130	Effects of acid and metal salt additives on product characteristics of biomass microwave pyrolysis. Journal of Renewable and Sustainable Energy, 2016, 8, .	0.8	5
131	Effects of the physicochemical properties of biochar and soil on moisture sorption. Journal of Renewable and Sustainable Energy, 2016, 8, 064702.	0.8	5
132	Enhanced Wet Flue Gas Desulfurization Properties by Additives of Organic Acids, Organic Salts, Inorganic Salts, and Organic Amines. Energy & Fuels, 2020, 34, 14429-14438.	2.5	5
133	CFD Modelling of the Fuel Reactor of a Chemical Loping Combustion Plant to Be Used with Biomethane. Processes, 2022, 10, 588.	1.3	5
134	Catalytic Hydrotreatment of Industrial Wood Tar under Supercritical Ethanol Conditions. Energy & Fuels, 2020, 34, 5983-5989.	2.5	3
135	Pyrolysis Chemistry and Mechanisms: Interactions of Primary Components. Biofuels and Biorefineries, 2020, , 113-137.	0.5	1