Haiping Yang

List of Publications by Citations

134 papers	11,290 citations	43 h-index	106 g-index
137 ext. papers	14,151 ext. citations	7.5 avg, IF	6.71 L-index

#	Paper	IF	Citations
134	Characteristics of hemicellulose, cellulose and lignin pyrolysis. *Fuel*, **2007**, 86, 1781-1788	7.1	4492
133	Lignocellulosic biomass pyrolysis mechanism: A state-of-the-art review. *Progress in Energy and Combustion Science*, **2017**, 62, 33-86	33.6	1182
132	In-Depth Investigation of Biomass Pyrolysis Based on Three Major Components: Hemicellulose, Cellulose and Lignin. *Energy & Fuels*, **2006**, 20, 388-393	4.1	768
131	Biomass-based pyrolytic polygeneration system on cotton stalk pyrolysis: influence of temperature. *Bioresource Technology*, **2012**, 107, 411-8	11	279
130	Recent developments in lignocellulosic biomass catalytic fast pyrolysis: Strategies for the optimization of bio-oil quality and yield. *Fuel Processing Technology*, **2019**, 196, 106180	7.2	170
129	Transformation of Nitrogen and Evolution of N-Containing Species during Algae Pyrolysis. *Environmental Science & Technology*, **2017**, 51, 6570-6579	10.3	149
128	Hydrogen production from biomass gasification using biochar as a catalyst/support. *Bioresource Technology*, **2016**, 216, 159-64	11	143
127	Mechanism of Palm Oil Waste Pyrolysis in a Packed Bed. *Energy & Fuels*, **2006**, 20, 1321-1328	4.1	133
126	The structure evolution of biochar from biomass pyrolysis and its correlation with gas pollutant adsorption performance. *Bioresource Technology*, **2017**, 246, 101-109	11	122
125	Fast pyrolysis of cotton stalk biomass using calcium oxide. *Bioresource Technology*, **2017**, 233, 15-20	11	111
124	Torrefaction of agriculture straws and its application on biomass pyrolysis poly-generation. *Bioresource Technology*, **2014**, 156, 70-7	11	111
123	Fusion and transformation properties of the inorganic components in biomass ash. *Fuel*, **2014**, 117, 1281-1287	7.1	109
122	Chemical structure evolution of char during the pyrolysis of cellulose. *Journal of Analytical and Applied Pyrolysis*, **2015**, 116, 263-271	6	95
121	Evolution of functional groups and pore structure during cotton and corn stalks torrefaction and its correlation with hydrophobicity. *Fuel*, **2014**, 137, 41-49	7.1	91
120	Co-pyrolysis of lignocellulosic biomass and microalgae: Products characteristics and interaction effect. *Bioresource Technology*, **2017**, 245, 860-868	11	86
119	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	10.6	78
118	Investigation on biomass nitrogen-enriched pyrolysis: Influence of temperature. *Bioresource Technology*, **2018**, 249, 247-253	11	77

117	Effect of catalysts on the reactivity and structure evolution of char in petroleum coke steam gasification. *Fuel*, **2014**, 117, 1174-1180	7.1	77
116	Biomass pyrolysis for nitrogen-containing liquid chemicals and nitrogen-doped carbon materials. *Journal of Analytical and Applied Pyrolysis*, **2016**, 120, 186-193	6	77
115	Biomass-Based Pyrolytic Polygeneration System for Bamboo Industry Waste: Evolution of the Char Structure and the Pyrolysis Mechanism. *Energy & Fuels*, **2016**, 30, 6430-6439	4.1	75
114	Effects of Fe-, Zr-, and Co-Modified Zeolites and Pretreatments on Catalytic Upgrading of Biomass Fast Pyrolysis Vapors. *Energy & Fuels*, **2016**, 30, 3004-3013	4.1	74
113	Assessment of pyrolysis polygeneration of biomass based on major components: Product characterization and elucidation of degradation pathways. *Fuel*, **2013**, 113, 266-273	7.1	74
112	The densification of bio-char: Effect of pyrolysis temperature on the qualities of pellets. *Bioresource Technology*, **2016**, 200, 521-7	11	73
111	Algae pyrolytic poly-generation: Influence of component difference and temperature on products characteristics. *Energy*, **2017**, 131, 1-12	7.9	72
110	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	11	71
109	Co-pyrolysis of microalgae and plastic: Characteristics and interaction effects. *Bioresource Technology*, **2019**, 274, 145-152	11	66
108	Bioenergy in China: Evaluation of domestic biomass resources and the associated greenhouse gas mitigation potentials. *Renewable and Sustainable Energy Reviews*, **2020**, 127, 109842	16.2	65
107	A Review of Recent Advances in Biomass Pyrolysis. *Energy & Fuels*, **2020**, 34, 15557-15578	4.1	65
106	Mechanism of biomass activation and ammonia modification for nitrogen-doped porous carbon materials. *Bioresource Technology*, **2019**, 280, 260-268	11	58
105	Catalytic deoxygenation co-pyrolysis of bamboo wastes and microalgae with biochar catalyst. *Energy*, **2018**, 157, 472-482	7.9	56
104	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	7.9	55
103	Influence of Biochar Addition on Nitrogen Transformation during Copyrolysis of Algae and Lignocellulosic Biomass. *Environmental Science & Technology*, **2018**, 52, 9514-9521	10.3	54
102	Insight into KOH activation mechanism during biomass pyrolysis: Chemical reactions between O-containing groups and KOH. *Applied Energy*, **2020**, 278, 115730	10.7	54
101	Application of biomass pyrolytic polygeneration technology using retort reactors. *Bioresource Technology*, **2016**, 200, 64-71	11	53
100	Hydrogen production from agricultural biomass wastes gasification in a fluidized bed with calcium oxide enhancing. *International Journal of Hydrogen Energy*, **2017**, 42, 4832-4839	6.7	52

99	Pyrolysis characteristics of lignocellulosic biomass components in the presence of CaO. *Bioresource Technology*, **2019**, 287, 121493	11	50
98	Comparative study of wet and dry torrefaction of corn stalk and the effect on biomass pyrolysis polygeneration. *Bioresource Technology*, **2018**, 258, 88-97	11	49
97	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	10.6	48
96	NOx precursors from biomass pyrolysis: Distribution of amino acids in biomass and Tar-N during devolatilization using model compounds. *Fuel*, **2017**, 187, 367-375	7.1	48
95	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	6.7	46
94	Synthesis and characterization of magnesium oxide nanoparticle-containing biochar composites for efficient phosphorus removal from aqueous solution. *Chemosphere*, **2020**, 247, 125847	8.4	44
93	Influence of NH concentration on biomass nitrogen-enriched pyrolysis. *Bioresource Technology*, **2018**, 263, 350-357	11	44
92	Correlation of Feedstock and Bio-oil Compound Distribution. *Energy & Fuels*, **2017**, 31, 7093-7100	4.1	43
91	Characteristics of Particulate Matter Emitted from Agricultural Biomass Combustion. *Energy & Fuels*, **2017**, 31, 7493-7501	4.1	43
90	Aromatics production with metal oxides and ZSM-5 as catalysts in catalytic pyrolysis of wood sawdust. *Fuel Processing Technology*, **2019**, 188, 146-152	7.2	41
89	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	10.2	41
88	Effect of minerals and binders on particulate matter emission from biomass pellets combustion. *Applied Energy*, **2018**, 215, 106-115	10.7	40
87	Biomass Pyrolytic Polygeneration of Tobacco Waste: Product Characteristics and Nitrogen Transformation. *Energy & Fuels*, **2016**, 30, 1579-1588	4.1	40
86	Catalytic fast pyrolysis of biomass to produce furfural using heterogeneous catalysts. *Journal of Analytical and Applied Pyrolysis*, **2017**, 127, 292-298	6	40
85	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	6	40
84	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	6.7	38
83	Plasma reforming of biomass gasification tars using mixed naphthalene and toluene as model compounds. *Energy Conversion and Management*, **2019**, 195, 409-419	10.6	38
82	Preparation of mesoporous ZSM-5 catalysts using green templates and their performance in biomass catalytic pyrolysis. *Bioresource Technology*, **2019**, 289, 121729	11	38

81	Effects of potassium salts loading on calcium oxide on the hydrogen production from pyrolysis-gasification of biomass. *Bioresource Technology*, **2018**, 249, 744-750	11	37
80	Hydrogen production from cellulose catalytic gasification on CeO2/Fe2O3 catalyst. *Energy Conversion and Management*, **2018**, 171, 241-248	10.6	36
79	Molten salt pyrolysis of biomass: The mechanism of volatile reforming and pyrolysis. *Energy*, **2020**, 213, 118801	7.9	36
78	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	4.1	36
77	Effect of Carboxymethyl Cellulose Binder on the Quality of Biomass Pellets. *Energy & Fuels*, **2016**, 30, 5799-5808	4.1	34
76	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	11	34
75	Evolution of char structure during mengdong coal pyrolysis: Influence of temperature and K 2 CO 3. *Fuel Processing Technology*, **2017**, 159, 178-186	7.2	33
74	The enhancing mechanism of calcium oxide on water gas shift reaction for hydrogen production. *Energy*, **2014**, 68, 248-254	7.9	33
73	Generalized two-dimensional correlation infrared spectroscopy to reveal the mechanisms of lignocellulosic biomass pyrolysis. *Proceedings of the Combustion Institute*, **2019**, 37, 3013-3021	5.9	32
72	Plasma reforming of naphthalene as a tar model compound of biomass gasification. *Energy Conversion and Management*, **2019**, 187, 593-604	10.6	31
71	Investigation of the pyrolysis characteristics of guaiacol lignin using combined Py-GC GC/TOF-MS and in-situ FTIR. *Fuel*, **2019**, 251, 496-505	7.1	30
70	Hemicellulose pyrolysis mechanism based on functional group evolutions by two-dimensional perturbation correlation infrared spectroscopy. *Fuel*, **2020**, 267, 117302	7.1	30
69	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	5.9	28
68	Solar pyrolysis of cotton stalk in molten salt for bio-fuel production. *Energy*, **2019**, 179, 1124-1132	7.9	27
67	The effect of combined pretreatments on the pyrolysis of corn stalk. *Bioresource Technology*, **2019**, 281, 309-317	11	27
66	Enhanced reforming of mixed biomass tar model compounds using a hybrid gliding arc plasma catalytic process. *Catalysis Today*, **2019**, 337, 225-233	5.3	27
65	Plasma reforming of tar model compound in a rotating gliding arc reactor: Understanding the effects of CO2 and H2O addition. *Fuel*, **2020**, 259, 116271	7.1	27
64	Influence of torrefaction with Mg-based additives on the pyrolysis of cotton stalk. *Bioresource Technology*, **2018**, 261, 62-69	11	25

63	Co-pyrolysis of microalgae with low-density polyethylene (LDPE) for deoxygenation and denitrification. *Bioresource Technology*, **2020**, 311, 123502	11	25
62	Pyrolytic characteristics of hemicellulose, cellulose and lignin under CO2 atmosphere. *Fuel*, **2019**, 256, 115890	7.1	24
61	Catalytic Upgrading of Fast Pyrolysis Products with Fe-, Zr-, and Co-Modified Zeolites Based on Pyrolyzer□C/MS Analysis. *Energy & Fuels*, **2017**, 31, 3979-3986	4.1	23
60	Role of porous structure and active O-containing groups of activated biochar catalyst during biomass catalytic pyrolysis. *Energy*, **2020**, 210, 118646	7.9	23
59	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	10.6	23
58	Ash Fusion Characteristics and Transformation Behaviors during Bamboo Combustion in Comparison with Straw and Poplar. *Energy & Fuels*, **2018**, 32, 5244-5251	4.1	21
57	Comprehensive mechanism of initial stage for lignin pyrolysis. *Combustion and Flame*, **2020**, 215, 1-9	5.3	21
56	A new insight of lignin pyrolysis mechanism based on functional group evolutions of solid char. *Fuel* , **2021**, 288, 119719	7.1	21
55	Coal and biomass co-pyrolysis in a fluidized-bed reactor: Numerical assessment of fuel type and blending conditions. *Fuel*, **2020**, 275, 118004	7.1	19
54	Physicochemical properties and hygroscopicity of tobacco stem biochar pyrolyzed at different temperatures. *Journal of Renewable and Sustainable Energy*, **2016**, 8, 013112	2.5	19
53	Characterization of Hydrochar Pellets from Hydrothermal Carbonization of Agricultural Residues. *Energy & Fuels*, **2018**, 32, 11538-11546	4.1	19
52	Effect of sodium carboxymethyl cellulose addition on particulate matter emissions during biomass pellet combustion. *Applied Energy*, **2018**, 230, 925-934	10.7	19
51	Influence of Inherent Silicon and Metals in Rice Husk on the Char Properties and Associated Silica Structure. *Energy & Fuels*, **2015**, 29, 7327-7334	4.1	17
50	Lignin Characterization and Catalytic Pyrolysis for Phenol-Rich Oil with TiO2-Based Catalysts. *Energy & Fuels*, **2019**, 33, 9934-9941	4.1	16
49	A comparative study of machine learning methods for bio-oil yield prediction - A genetic algorithm-based features selection. *Bioresource Technology*, **2021**, 335, 125292	11	16
48	Cellulose Pyrolysis Mechanism Based on Functional Group Evolutions by Two-Dimensional Perturbation Correlation Infrared Spectroscopy. *Energy & Fuels*, **2020**, 34, 3412-3421	4.1	15
47	The influence of CO2 on biomass fast pyrolysis at medium temperatures. *Journal of Renewable and Sustainable Energy*, **2018**, 10, 013108	2.5	15
46	Effects of Combined Torrefaction and Pelletization on Particulate Matter Emission from Biomass Pellet Combustion. *Energy & Fuels*, **2019**, 33, 8777-8785	4.1	14

45	Effect of Torrefaction on Properties of Pellets Produced from Woody Biomass. *Energy & Fuels*, **2020**, 34, 15343-15354	4.1	14
44	Influence of Biochar on the Steam Reforming of Biomass Volatiles: Effects of Activation Temperature and Atmosphere. *Energy & Fuels*, **2019**, 33, 2328-2334	4.1	13
43	Experiment and Modeling Study of Glucose Pyrolysis: Formation of 3-Hydroxy-Ebutyrolactone and 3-(2H)-Furanone. *Energy & Fuels*, **2018**, 32, 9519-9529	4.1	13
42	Effect of Heavy Metals in the Performance of Anaerobic Digestion of Olive Mill Waste. *Processes*, **2020**, 8, 1146	2.9	12
41	Characteristics and Evolution of Nitrogen in the Heavy Components of Algae Pyrolysis Bio-Oil. *Environmental Science & Technology*, **2021**, 55, 6373-6385	10.3	12
40	Organic salt-assisted pyrolysis for preparation of porous carbon from cellulose, hemicellulose and lignin: New insight from structure evolution. *Fuel*, **2021**, 291, 120185	7.1	12
39	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	16.2	11
38	Effects of Temperature and Mg-Based Additives on Properties of Cotton Stalk Torrefaction Products. *Energy & Fuels*, **2018**, 32, 9640-9649	4.1	10
37	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	4.1	10
36	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	8.1	10
35	Influence of additives on lignin agglomeration and pyrolysis behavior. *Fuel*, **2020**, 263, 116629	7.1	9
34	Impact of cellulose deoxidization temperature on the composition of liquid products obtained by subsequent pyrolysis. *Fuel Processing Technology*, **2019**, 184, 73-79	7.2	9
33	P-Based Additive for Reducing Fine Particulate Matter Emissions during Agricultural Biomass Combustion. *Energy & Fuels*, **2019**, 33, 11274-11284	4.1	8
32	Hydrothermal Treatment of High Ash Microalgae: Focusing on the Physicochemical and Combustion Properties of Hydrochars. *Energy & Fuels*, **2020**, 34, 1929-1939	4.1	7
31	A new insight into chemical reactions between biomass and alkaline additives during pyrolysis process. *Proceedings of the Combustion Institute*, **2021**, 38, 3881-3890	5.9	7
30	Reduction of fine particulate matter emissions from cornstalk combustion by calcium phosphates additives. *Fuel*, **2021**, 283, 119303	7.1	7
29	Enhancing the Production of Light Olefins from Wheat Straw with Modified HZSM-5 Catalytic Pyrolysis. *Energy & Fuels*, **2019**, 33, 11263-11273	4.1	6
28	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	6	6

27	Catalytic mechanisms of potassium salts on pyrolysis of β-O-4 type lignin model polymer based on DFT study. *Proceedings of the Combustion Institute*, **2021**, 38, 3969-3976	5.9	6
26	Tuning Coal into Graphene-Like Nanocarbon for Electrochemical H2O2 Production with Nearly 100% Faraday Efficiency. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 9369-9375	8.3	6
25	Application of Carbon Nanotubes from Waste Plastics As Filler to Epoxy Resin Composite.. *ACS Sustainable Chemistry and Engineering*, **2022**, 10, 2204-2213	8.3	5
24	Integrated gasification and non-thermal plasma-catalysis system for cleaner syngas production from cellulose. *IOP SciNotes*, **2020**, 1, 024001	1.2	5
23	Effects of acid and metal salt additives on product characteristics of biomass microwave pyrolysis. *Journal of Renewable and Sustainable Energy*, **2016**, 8, 063103	2.5	5
22	Molten salt pyrolysis of biomass: The evaluation of molten salt. *Fuel*, **2021**, 302, 121103	7.1	5
21	Two-Dimensional Perturbation Correlation Infrared Spectroscopy for Probing Pyrolysis of Biomass: Fundamentals, Applications, and Mechanistic Understanding. *Energy & Fuels*, **2020**, 34, 9154-9174	4.1	4
20	Effect of phosphorus-based additives on the sintering characteristics of cornstalk ash. *Journal of the Energy Institute*, **2021**, 97, 37-47	5.7	4
19	The new insight about mechanism of the influence of K2CO3 on cellulose pyrolysis. *Fuel*, **2021**, 295, 120617	7.1	3
18	Tuning the atomic configuration of Co-N-C electrocatalyst enables highly-selective H2O2 production in acidic media. *Applied Catalysis B: Environmental*, **2022**, 310, 121312	21.8	3
17	Catalytic Hydrotreatment of Industrial Wood Tar under Supercritical Ethanol Conditions. *Energy & Fuels*, **2020**, 34, 5983-5989	4.1	2
16	Reaction kinetics, mechanism, and product analysis of the iron catalytic graphitization of cellulose. *Journal of Cleaner Production*, **2021**, 329, 129735	10.3	2
15	Catalytic Pyrolysis of Biomass to Produce Aromatic Hydrocarbons over Calcined Dolomite and ZSM-5. *Energy & Fuels*, **2021**, 35, 16629-16636	4.1	2
14	Enhanced Wet Flue Gas Desulfurization Properties by Additives of Organic Acids, Organic Salts, Inorganic Salts, and Organic Amines. *Energy & Fuels*, **2020**, 34, 14429-14438	4.1	2
13	Effect of Mesopores in ZSM-5 on the Catalytic Conversion of Acetic Acid, Furfural, and Guaiacol. *Energy & Fuels*, **2021**, 35, 6022-6029	4.1	2
12	Effects of the physicochemical properties of biochar and soil on moisture sorption. *Journal of Renewable and Sustainable Energy*, **2016**, 8, 064702	2.5	2
11	Co-gasification of petroleum coke with coal at high temperature: Effects of blending ratio and the catalyst. *Fuel*, **2022**, 307, 121863	7.1	2
10	Pyrolysis Chemistry and Mechanisms: Interactions of Primary Components. *Biofuels and Biorefineries*, **2020**, 113-137	0.3	1

9	CFD Modelling of the Fuel Reactor of a Chemical Loping Combustion Plant to Be Used with Biomethane. *Processes*, **2022**, 10, 588	2.9	0
8	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	8.1	0
7	Effects of P-based additives on agricultural biomass torrefaction and particulate matter emissions from fuel combustion. *Renewable Energy*, **2022**, 190, 66-77	8.1	0
6	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	7.2	0
5	Effects of cellulose-lignin interaction on the evolution of biomass pyrolysis bio-oil heavy components. *Fuel*, **2022**, 323, 124413	7.1	0
4	Thermal decomposition pathways of phenylalanine and glutamic acid and the interaction mechanism between the two amino acids and glucose. *Fuel*, **2022**, 324, 124345	7.1	0
3	Catalytic pyrolysis of cellulose with sulfonated carbon catalyst to produce levoglucosenone. *Fuel Processing Technology*, **2022**, 234, 107323	7.2	0
2	Influence of calcination temperature on calcined carbide slag assisted biomass pyrolysis. *Fuel Processing Technology*, **2022**, 234, 107339	7.2	0
1	Carbon Nanotubes for Hydrogen Purification and Storage **2020**, 211-238		