

Xia Sunwen

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

104 papers	10,644 citations	41 h-index	103 g-index
104 ext. papers	13,312 ext. citations	8.3 avg, IF	6.65 L-index

#	Paper	IF	Citations
104	Study on the physicochemical structure and gasification reactivity of chars from pyrolysis of biomass pellets under different heating rates. <i>Fuel</i> , 2022 , 314, 122789	7.1	1
103	Fe ₂ O ₃ based synergistic catalytic graphitization of biomass: Influence of the catalyst type and the pyrolytic temperature. <i>Energy</i> , 2022 , 239, 122262	7.9	3
102	Co-gasification of petroleum coke with coal at high temperature: Effects of blending ratio and the catalyst. <i>Fuel</i> , 2022 , 307, 121863	7.1	2
101	Insight into the formation mechanism of N, P co-doped mesoporous biochar from H ₃ PO ₄ activation and NH ₃ modification of biomass. <i>Fuel Processing Technology</i> , 2022 , 230, 107215	7.2	0
100	Impact of biomass constituent interactions on the evolution of char's chemical structure: An organic functional group perspective. <i>Fuel</i> , 2022 , 319, 123772	7.1	0
99	Pyrolysis of boron-crosslinked lignin: influence on lignin softening and product properties.. <i>Bioresource Technology</i> , 2022 , 127218	11	1
98	Effects of cellulose-lignin interaction on the evolution of biomass pyrolysis bio-oil heavy components. <i>Fuel</i> , 2022 , 323, 124413	7.1	0
97	Thermal decomposition pathways of phenylalanine and glutamic acid and the interaction mechanism between the two amino acids and glucose. <i>Fuel</i> , 2022 , 324, 124345	7.1	0
96	Influence of calcination temperature on calcined carbide slag assisted biomass pyrolysis. <i>Fuel Processing Technology</i> , 2022 , 234, 107339	7.2	0
95	Influence of the synergistic effects between coal and hemicellulose/cellulose/lignin on the co-combustion of coal and lignocellulosic biomass. <i>Fuel</i> , 2021 , 311, 122585	7.1	1
94	Catalytic Pyrolysis of Biomass to Produce Aromatic Hydrocarbons over Calcined Dolomite and ZSM-5. <i>Energy & Fuels</i> , 2021 , 35, 16629-16636	4.1	2
93	High-value products from ex-situ catalytic pyrolysis of polypropylene waste using iron-based catalysts: the influence of support materials. <i>Waste Management</i> , 2021 , 136, 47-56	8.6	4
92	Biomass hydrothermal conversion under CO atmosphere: A way to improve the regulation of hydrothermal products. <i>Science of the Total Environment</i> , 2021 , 807, 150900	10.2	2
91	Catalytic gasification reactivity and mechanism of petroleum coke at high temperature. <i>Fuel</i> , 2021 , 293, 120469	7.1	12
90	Negative-carbon pyrolysis of biomass (NCPB) over CaO originated from carbide slag for on-line upgrading of pyrolysis gas and bio-oil. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021 , 156, 105063	6	7
89	Temperature-dependent magnesium citrate modified formation of MgO nanoparticles biochar composites with efficient phosphate removal. <i>Chemosphere</i> , 2021 , 274, 129904	8.4	11
88	The new insight about mechanism of the influence of K ₂ CO ₃ on cellulose pyrolysis. <i>Fuel</i> , 2021 , 295, 120617	7.1	3

87	Effects of cellulose, hemicellulose, and lignin on the combustion behaviours of biomass under various oxygen concentrations. <i>Bioresource Technology</i> , 2021 , 320, 124375	11	12
86	Reduction of fine particulate matter emissions from cornstalk combustion by calcium phosphates additives. <i>Fuel</i> , 2021 , 283, 119303	7.1	7
85	A new insight of lignin pyrolysis mechanism based on functional group evolutions of solid char. <i>Fuel</i> , 2021 , 288, 119719	7.1	21
84	Carbonization using an Improved Natural Draft Retort Reactor in India: Comparison between the performance of two woody biomasses, <i>Prosopis juliflora</i> and <i>Casuarina equisetifolia</i> . <i>Fuel</i> , 2021 , 285, 119095	7.1	10
83	Pyrolysis-catalysis of different waste plastics over Fe/Al ₂ O ₃ catalyst: High-value hydrogen, liquid fuels, carbon nanotubes and possible reaction mechanisms. <i>Energy Conversion and Management</i> , 2021 , 229, 113794	10.6	23
82	Lignin pyrolysis under NH ₃ atmosphere for 4-vinylphenol product: An experimental and theoretical study. <i>Fuel</i> , 2021 , 297, 120776	7.1	7
81	Molten salt pyrolysis of biomass: The evaluation of molten salt. <i>Fuel</i> , 2021 , 302, 121103	7.1	5
80	Effect of boron-based additives on char agglomeration and boron doped carbon microspheres structure from lignin pyrolysis. <i>Fuel</i> , 2021 , 303, 121237	7.1	5
79	Synthesis and application in oxygen reduction reaction of N-doping porous graphitic carbon from biomass waste. <i>Fuel Processing Technology</i> , 2021 , 224, 107028	7.2	1
78	Effects of hemicellulose, cellulose and lignin on the ignition behaviors of biomass in a drop tube furnace. <i>Bioresource Technology</i> , 2020 , 310, 123456	11	16
77	Thermal behavior, kinetics and gas evolution characteristics for the co-pyrolysis of real-world plastic and tyre wastes. <i>Journal of Cleaner Production</i> , 2020 , 260, 121102	10.3	47
76	Hemicellulose pyrolysis mechanism based on functional group evolutions by two-dimensional perturbation correlation infrared spectroscopy. <i>Fuel</i> , 2020 , 267, 117302	7.1	30
75	Synergetic effect of magnesium citrate and temperature on the product characteristics of waste lotus seedpod pyrolysis. <i>Bioresource Technology</i> , 2020 , 305, 123079	11	10
74	Pyrolysis Chemistry and Mechanisms: Interactions of Primary Components. <i>Biofuels and Biorefineries</i> , 2020 , 113-137	0.3	1
73	Co-pyrolysis of microalgae with low-density polyethylene (LDPE) for deoxygenation and denitrification. <i>Bioresource Technology</i> , 2020 , 311, 123502	11	25
72	Bimetallic carbon nanotube encapsulated Fe-Ni catalysts from fast pyrolysis of waste plastics and their oxygen reduction properties. <i>Waste Management</i> , 2020 , 109, 119-126	8.6	26
71	Integrated gasification and non-thermal plasma-catalysis system for cleaner syngas production from cellulose. <i>IOP SciNotes</i> , 2020 , 1, 024001	1.2	5
70	Synthesis and characterization of magnesium oxide nanoparticle-containing biochar composites for efficient phosphorus removal from aqueous solution. <i>Chemosphere</i> , 2020 , 247, 125847	8.4	44

69	Preparation of Iron- and Nitrogen-Codoped Carbon Nanotubes from Waste Plastics Pyrolysis for the Oxygen Reduction Reaction. <i>ChemSusChem</i> , 2020 , 13, 938-944	8.3	25
68	Influence of additives on lignin agglomeration and pyrolysis behavior. <i>Fuel</i> , 2020 , 263, 116629	7.1	9
67	Bamboo wastes catalytic pyrolysis with N-doped biochar catalyst for phenols products. <i>Applied Energy</i> , 2020 , 260, 114242	10.7	58
66	Experiment and simulation of the pneumatic classification and drying of coking coal in a fluidized bed dryer. <i>Chemical Engineering Science</i> , 2020 , 214, 115364	4.4	7
65	Vapor-Solid interaction among cellulose, hemicellulose and lignin. <i>Fuel</i> , 2020 , 263, 116681	7.1	16
64	Life Cycle Assessment and Economic Analysis of Biomass Energy Technology in China: A Brief Review. <i>Processes</i> , 2020 , 8, 1112	2.9	12
63	Molten salt pyrolysis of biomass: The mechanism of volatile reforming and pyrolysis. <i>Energy</i> , 2020 , 213, 118801	7.9	36
62	Role of porous structure and active O-containing groups of activated biochar catalyst during biomass catalytic pyrolysis. <i>Energy</i> , 2020 , 210, 118646	7.9	23
61	Biomass gasification in molten salt for syngas production. <i>Energy</i> , 2020 , 210, 118563	7.9	12
60	Production of furfural and levoglucosan from typical agricultural wastes via pyrolysis coupled with hydrothermal conversion: Influence of temperature and raw materials. <i>Waste Management</i> , 2020 , 114, 43-52	8.6	10
59	A Review of Recent Advances in Biomass Pyrolysis. <i>Energy & Fuels</i> , 2020 , 34, 15557-15578	4.1	65
58	Two-Dimensional Perturbation Correlation Infrared Spectroscopy for Probing Pyrolysis of Biomass: Fundamentals, Applications, and Mechanistic Understanding. <i>Energy & Fuels</i> , 2020 , 34, 9154-9174	4.1	4
57	Synthesis and formation mechanism of biomass-based mesoporous graphitic carbon. <i>Fuel Processing Technology</i> , 2020 , 209, 106543	7.2	16
56	Insight into KOH activation mechanism during biomass pyrolysis: Chemical reactions between O-containing groups and KOH. <i>Applied Energy</i> , 2020 , 278, 115730	10.7	54
55	Plasma reforming of tar model compound in a rotating gliding arc reactor: Understanding the effects of CO ₂ and H ₂ O addition. <i>Fuel</i> , 2020 , 259, 116271	7.1	27
54	Recent developments in lignocellulosic biomass catalytic fast pyrolysis: Strategies for the optimization of bio-oil quality and yield. <i>Fuel Processing Technology</i> , 2019 , 196, 106180	7.2	170
53	Preparation of furfural by catalytic pyrolysis of cellulose based on nano Na/Fe-solid acid. <i>Fuel</i> , 2019 , 258, 116089	7.1	22
52	Investigation on co-pyrolysis of lignocellulosic biomass and amino acids using TG-FTIR and Py-GC/MS. <i>Energy Conversion and Management</i> , 2019 , 196, 320-329	10.6	48

51	Solar pyrolysis of cotton stalk in molten salt for bio-fuel production. <i>Energy</i> , 2019 , 179, 1124-1132	7.9	27
50	The effects of temperature and molten salt on solar pyrolysis of lignite. <i>Energy</i> , 2019 , 181, 407-416	7.9	20
49	Pyrolysis of Chinese chestnut shells: Effects of temperature and Fe presence on product composition. <i>Bioresource Technology</i> , 2019 , 287, 121444	11	22
48	Pyrolysis characteristics of lignocellulosic biomass components in the presence of CaO. <i>Bioresource Technology</i> , 2019 , 287, 121493	11	50
47	Effect of volatiles interaction during pyrolysis of cellulose, hemicellulose, and lignin at different temperatures. <i>Fuel</i> , 2019 , 248, 1-7	7.1	40
46	The effect of combined pretreatments on the pyrolysis of corn stalk. <i>Bioresource Technology</i> , 2019 , 281, 309-317	11	27
45	Mechanism of biomass activation and ammonia modification for nitrogen-doped porous carbon materials. <i>Bioresource Technology</i> , 2019 , 280, 260-268	11	58
44	Aromatics production with metal oxides and ZSM-5 as catalysts in catalytic pyrolysis of wood sawdust. <i>Fuel Processing Technology</i> , 2019 , 188, 146-152	7.2	41
43	Generalized two-dimensional correlation infrared spectroscopy to reveal the mechanisms of lignocellulosic biomass pyrolysis. <i>Proceedings of the Combustion Institute</i> , 2019 , 37, 3013-3021	5.9	32
42	Pyrolytic characteristics of hemicellulose, cellulose and lignin under CO ₂ atmosphere. <i>Fuel</i> , 2019 , 256, 115890	7.1	24
41	Study on CO ₂ gasification of biochar in molten salts: Reactivity and structure evolution. <i>Fuel</i> , 2019 , 254, 115614	7.1	31
40	Enhancing the production of light olefins and aromatics from catalytic fast pyrolysis of cellulose in a dual-catalyst fixed bed reactor. <i>Bioresource Technology</i> , 2019 , 273, 77-85	11	34
39	Catalytic fast pyrolysis of biomass: Selective deoxygenation to balance the quality and yield of bio-oil. <i>Bioresource Technology</i> , 2019 , 273, 153-158	11	100
38	The influence of CO ₂ on biomass fast pyrolysis at medium temperatures. <i>Journal of Renewable and Sustainable Energy</i> , 2018 , 10, 013108	2.5	15
37	Comparative study of wet and dry torrefaction of corn stalk and the effect on biomass pyrolysis polygeneration. <i>Bioresource Technology</i> , 2018 , 258, 88-97	11	49
36	Thermal behavior and reaction kinetics analysis of pyrolysis and subsequent in-situ gasification of torrefied biomass pellets. <i>Energy Conversion and Management</i> , 2018 , 161, 205-214	10.6	78
35	Influence of torrefaction with Mg-based additives on the pyrolysis of cotton stalk. <i>Bioresource Technology</i> , 2018 , 261, 62-69	11	25
34	Investigation on biomass nitrogen-enriched pyrolysis: Influence of temperature. <i>Bioresource Technology</i> , 2018 , 249, 247-253	11	77

33	Co-production of hydrogen and carbon nanotubes from real-world waste plastics: Influence of catalyst composition and operational parameters. <i>Applied Catalysis B: Environmental</i> , 2018 , 221, 584-597	21.8	108
32	Influence of Biochar Addition on Nitrogen Transformation during Copyrolysis of Algae and Lignocellulosic Biomass. <i>Environmental Science & Technology</i> , 2018 , 52, 9514-9521	10.3	54
31	Co-precipitation, impregnation and so-gel preparation of Ni catalysts for pyrolysis-catalytic steam reforming of waste plastics. <i>Applied Catalysis B: Environmental</i> , 2018 , 239, 565-577	21.8	86
30	Effects of Temperature and Mg-Based Additives on Properties of Cotton Stalk Torrefaction Products. <i>Energy & Fuels</i> , 2018 , 32, 9640-9649	4.1	10
29	Experiment and Modeling Study of Glucose Pyrolysis: Formation of 3-Hydroxy- β -butyrolactone and 3-(2H)-Furanone. <i>Energy & Fuels</i> , 2018 , 32, 9519-9529	4.1	13
28	Catalytic fast pyrolysis of cellulose to produce furan compounds with SAPO type catalysts. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018 , 129, 53-60	6	50
27	Pyrolysis behavior and economics analysis of the biomass pyrolytic polygeneration of forest farming waste. <i>Bioresource Technology</i> , 2018 , 270, 189-197	11	19
26	Influence of NH concentration on biomass nitrogen-enriched pyrolysis. <i>Bioresource Technology</i> , 2018 , 263, 350-357	11	44
25	Catalytic deoxygenation co-pyrolysis of bamboo wastes and microalgae with biochar catalyst. <i>Energy</i> , 2018 , 157, 472-482	7.9	56
24	Fast pyrolysis of cotton stalk biomass using calcium oxide. <i>Bioresource Technology</i> , 2017 , 233, 15-20	11	111
23	Evolution of char structure during mengdong coal pyrolysis: Influence of temperature and K ₂ CO ₃ . <i>Fuel Processing Technology</i> , 2017 , 159, 178-186	7.2	33
22	Transformation of Nitrogen and Evolution of N-Containing Species during Algae Pyrolysis. <i>Environmental Science & Technology</i> , 2017 , 51, 6570-6579	10.3	149
21	Co-production of hydrogen and carbon nanotubes from catalytic pyrolysis of waste plastics on Ni-Fe bimetallic catalyst. <i>Energy Conversion and Management</i> , 2017 , 148, 692-700	10.6	100
20	Lignocellulosic biomass pyrolysis mechanism: A state-of-the-art review. <i>Progress in Energy and Combustion Science</i> , 2017 , 62, 33-86	33.6	1182
19	Correlation of Feedstock and Bio-oil Compound Distribution. <i>Energy & Fuels</i> , 2017 , 31, 7093-7100	4.1	43
18	The effects of contact time and coking on the catalytic fast pyrolysis of cellulose. <i>Green Chemistry</i> , 2017 , 19, 286-297	10	50
17	The structure evolution of biochar from biomass pyrolysis and its correlation with gas pollutant adsorption performance. <i>Bioresource Technology</i> , 2017 , 246, 101-109	11	122
16	Co-pyrolysis of lignocellulosic biomass and microalgae: Products characteristics and interaction effect. <i>Bioresource Technology</i> , 2017 , 245, 860-868	11	86

15	Co-gasification of coal and biomass: Synergy, characterization and reactivity of the residual char. <i>Bioresource Technology</i> , 2017 , 244, 1-7	11	62
14	Catalytic fast pyrolysis of biomass to produce furfural using heterogeneous catalysts. <i>Journal of Analytical and Applied Pyrolysis</i> , 2017 , 127, 292-298	6	40
13	Application of biomass pyrolytic polygeneration technology using retort reactors. <i>Bioresource Technology</i> , 2016 , 200, 64-71	11	53
12	Biomass pyrolysis for nitrogen-containing liquid chemicals and nitrogen-doped carbon materials. <i>Journal of Analytical and Applied Pyrolysis</i> , 2016 , 120, 186-193	6	77
11	Biomass-Based Pyrolytic Polygeneration System for Bamboo Industry Waste: Evolution of the Char Structure and the Pyrolysis Mechanism. <i>Energy & Fuels</i> , 2016 , 30, 6430-6439	4.1	75
10	Study on pyrolysis behaviors of non-woody lignins with TG-FTIR and Py-GC/MS. <i>Journal of Analytical and Applied Pyrolysis</i> , 2015 , 113, 499-507	6	147
9	Effect of catalysts on the reactivity and structure evolution of char in petroleum coke steam gasification. <i>Fuel</i> , 2014 , 117, 1174-1180	7.1	77
8	Characterization of Modified Biochars Derived from Bamboo Pyrolysis and Their Utilization for Target Component (Furfural) Adsorption. <i>Energy & Fuels</i> , 2014 , 28, 5119-5127	4.1	141
7	Evolution of functional groups and pore structure during cotton and corn stalks torrefaction and its correlation with hydrophobicity. <i>Fuel</i> , 2014 , 137, 41-49	7.1	91
6	Torrefaction of agriculture straws and its application on biomass pyrolysis poly-generation. <i>Bioresource Technology</i> , 2014 , 156, 70-7	11	111
5	Assessment of pyrolysis polygeneration of biomass based on major components: Product characterization and elucidation of degradation pathways. <i>Fuel</i> , 2013 , 113, 266-273	7.1	74
4	Biomass-based pyrolytic polygeneration system on cotton stalk pyrolysis: influence of temperature. <i>Bioresource Technology</i> , 2012 , 107, 411-8	11	279
3	Characteristics of hemicellulose, cellulose and lignin pyrolysis. <i>Fuel</i> , 2007 , 86, 1781-1788	7.1	4492
2	Mechanism of Palm Oil Waste Pyrolysis in a Packed Bed. <i>Energy & Fuels</i> , 2006 , 20, 1321-1328	4.1	133
1	In-Depth Investigation of Biomass Pyrolysis Based on Three Major Components: Hemicellulose, Cellulose and Lignin. <i>Energy & Fuels</i> , 2006 , 20, 388-393	4.1	768