

Lignocellulosic biomass pyrolysis mechanism: A state-of-the-art review

Progress in Energy and Combustion Science

62, 33-86

DOI: [10.1016/j.pecs.2017.05.004](https://doi.org/10.1016/j.pecs.2017.05.004)

Citation Report

#	ARTICLE	IF	CITATIONS
1	The effects of potassium on distributions of bio-oils obtained from fast pyrolysis of agricultural and forest biomass in a fluidized bed. <i>Applied Energy</i> , 2017, 208, 867-877.	5.1	81
2	Co-pyrolysis of lignocellulosic biomass and microalgae: Products characteristics and interaction effect. <i>Bioresource Technology</i> , 2017, 245, 860-868.	4.8	157
3	Electricity production from lignocellulosic biomass by direct coupling of a gasifier and a Nickel/Yttria-stabilized Zirconia-based solid oxide fuel cell. Part 1: From gas production to direct electricity production. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 21215-21225.	3.8	10
4	Microwave-assisted catalytic fast co-pyrolysis of <i>Ageratina adenophora</i> and kerogen with CaO and ZSM-5. <i>Journal of Analytical and Applied Pyrolysis</i> , 2017, 127, 246-257.	2.6	42
5	Influence of Reaction Atmosphere (N_2 , CO , CO_2 , and H_2) on ZSM-5 Catalyzed Microwave-Induced Fast Pyrolysis of Medicinal Herb Residue for Biofuel Production. <i>Energy & Fuels</i> , 2017, 31, 9627-9632.	2.5	20
6	Effect of Process Parameters in the Thermomechanical Densification of <i>Pinus elliottii</i> and <i>Eucalyptus grandis</i> Fast-growing Wood. <i>BioResources</i> , 2017, 13, .	0.5	21
7	Upgrading of lignin pyrolytic-oil model compounds in a catalytic dielectric barrier discharge plasma reactor. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 131, 128-133.	2.6	12
8	Activation energy prediction of biomass wastes based on different neural network topologies. <i>Fuel</i> , 2018, 220, 535-545.	3.4	36
9	Preparation of multipurpose bio-oil from rice husk by pyrolysis and fractional condensation. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 131, 113-119.	2.6	69
10	Bio-oil production from sequential two-step microwave-assisted catalytic fast pyrolysis of water hyacinth using Ce-doped γ - Al_2O_3/ZrO_2 composite mesoporous catalyst. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 132, 143-150.	2.6	22
11	Addressing the energy sustainability of biowaste-derived hard carbon materials for battery electrodes. <i>Green Chemistry</i> , 2018, 20, 1527-1537.	4.6	32
12	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.	4.4	103
13	Catalytic behaviors of alkali metal salt involved in homogeneous volatile and heterogeneous char reforming in steam gasification of cellulose. <i>Energy Conversion and Management</i> , 2018, 158, 147-155.	4.4	50
14	Biofuel production from distillers dried grains with solubles (DDGS) co-fed with waste agricultural plastic mulching films via microwave-assisted catalytic fast pyrolysis using microwave absorbent and hierarchical ZSM-5/MCM-41 catalyst. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 130, 1-7.	2.6	43
15	Structural Characterization of Corn Stover Lignin after Hydrogen Peroxide Presoaking Prior to Ammonia Fiber Expansion Pretreatment. <i>Energy & Fuels</i> , 2018, 32, 6022-6030.	2.5	129
16	A promptly approach from monosaccharides of biomass to oligosaccharides via sharp-quenching thermo conversion (SQTC). <i>Carbohydrate Polymers</i> , 2018, 189, 204-209.	5.1	11
17	Catalytic fast co-pyrolysis of biomass and fusel alcohol to enhance aromatic hydrocarbon production over ZSM-5 catalyst in a fluidized bed reactor. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 133, 147-153.	2.6	34
18	Association of chemical structure and thermal degradation of lignins from crop straw and softwood. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 134, 25-34.	2.6	30

#	ARTICLE	IF	CITATIONS
19	Branching-First: Synthesizing C ^α -C Skeletal Branched Biobased Chemicals from Sugars. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 7940-7950.	3.2	5
20	Thermal oxidative degradation kinetics of agricultural residues using distributed activation energy model and global kinetic model. <i>Bioresource Technology</i> , 2018, 261, 403-411.	4.8	39
21	Comparison of the thermal degradation behaviors and kinetics of palm oil waste under nitrogen and air atmosphere in TGA-FTIR with a complementary use of model-free and model-fitting approaches. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 134, 12-24.	2.6	138
22	Monocyclic aromatic hydrocarbons production from catalytic cracking of pine wood-derived pyrolytic vapors over Ce-Mo ₂ N/HZSM-5 catalyst. <i>Science of the Total Environment</i> , 2018, 634, 141-149.	3.9	36
23	Improving hydrocarbon yield from catalytic fast co-pyrolysis of hemicellulose and plastic in the dual-catalyst bed of CaO and HZSM-5. <i>Bioresource Technology</i> , 2018, 261, 86-92.	4.8	132
24	Thermal degradation and compositional changes of wood treated in a semi-industrial scale reactor in vacuum. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 130, 8-18.	2.6	51
25	Influence of a Lewis acid and a Brønsted acid on the conversion of microcrystalline cellulose into 5-hydroxymethylfurfural in a single-phase reaction system of water and 1,2-dimethoxyethane. <i>RSC Advances</i> , 2018, 8, 7235-7242.	1.7	40
26	A comparative study on the quality of bio-oil derived from green macroalga <i>Enteromorpha clathrata</i> over metal modified ZSM-5 catalysts. <i>Bioresource Technology</i> , 2018, 256, 446-455.	4.8	49
27	Revealing low temperature microwave-assisted pyrolysis kinetic behaviors and dielectric properties of biomass components. <i>AIChE Journal</i> , 2018, 64, 2124-2134.	1.8	15
28	Study of synergistic effects during co-pyrolysis of cellulose and high-density polyethylene at various ratios. <i>Energy Conversion and Management</i> , 2018, 157, 517-526.	4.4	96
29	Changes in the physicochemical structure and pyrolysis characteristics of wheat straw after rod-milling pretreatment. <i>Bioresource Technology</i> , 2018, 250, 770-776.	4.8	40
30	Effect of Torrefaction on the Structure and Pyrolysis Behavior of Lignin. <i>Energy & Fuels</i> , 2018, 32, 4160-4166.	2.5	62
31	Waste Valorization to Fuel and Chemicals Through Pyrolysis: Technology, Feedstock, Products, and Economic Analysis. <i>Energy, Environment, and Sustainability</i> , 2018, , 477-514.	0.6	7
32	In situ structural changes of crystalline and amorphous cellulose during slow pyrolysis at low temperatures. <i>Fuel</i> , 2018, 216, 313-321.	3.4	93
33	Conversion of poultry litter into bio-oil by microwave-assisted catalytic fast pyrolysis using microwave absorbent and hierarchical ZSM-5/MCM-41 catalyst. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 130, 233-240.	2.6	48
34	Chemicals from lignin: an interplay of lignocellulose fractionation, depolymerisation, and upgrading. <i>Chemical Society Reviews</i> , 2018, 47, 852-908.	18.7	1,708
35	Pyrolysis characteristics of tobacco stem after different solvent leaching treatments. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 130, 350-357.	2.6	34
36	Advancing catalytic fast pyrolysis through integrated multiscale modeling and experimentation: Challenges, progress, and perspectives. <i>Wiley Interdisciplinary Reviews: Energy and Environment</i> , 2018, 7, e297.	1.9	30

#	ARTICLE	IF	CITATIONS
37	Catalytic fast pyrolysis of rice husk for bio-oil production. <i>Energy</i> , 2018, 154, 477-487.	4.5	52
38	Catalytic co-pyrolysis of cellulose and polypropylene over all-silica mesoporous catalyst MCM-41 and Al-MCM-41. <i>Science of the Total Environment</i> , 2018, 633, 1105-1113.	3.9	93
39	Kinetics of synergistic effects in co-pyrolysis of biomass with plastic wastes. <i>Applied Energy</i> , 2018, 220, 408-418.	5.1	194
40	Uncovering Structure-Reactivity Relationships in Pyrolysis and Gasification of Biomass with Varying Severity of Torrefaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 6008-6017.	3.2	45
41	Effect of microwave-assisted organosolv fractionation on the chemical structure and decoupling pyrolysis behaviors of waste biomass. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 131, 120-127.	2.6	15
42	Analyzing the pyrolysis kinetics of several microalgae species by various differential and integral isoconversional kinetic methods and the Distributed Activation Energy Model. <i>Algal Research</i> , 2018, 32, 11-29.	2.4	57
43	Study on the interaction effect of seaweed bio-coke and rice husk volatiles during co-pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 132, 111-122.	2.6	44
44	Thermokinetic analysis and product characterization of Medium Density Fiberboard pyrolysis. <i>Bioresource Technology</i> , 2018, 258, 105-110.	4.8	56
45	Upgrading of bio-oil from catalytic pyrolysis of pretreated rice husk over Fe-modified ZSM-5 zeolite catalyst. <i>Fuel Processing Technology</i> , 2018, 175, 17-25.	3.7	118
46	Investigation on biomass nitrogen-enriched pyrolysis: Influence of temperature. <i>Bioresource Technology</i> , 2018, 249, 247-253.	4.8	138
47	Processing thermogravimetric analysis data for isoconversional kinetic analysis of lignocellulosic biomass pyrolysis: Case study of corn stalk. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 82, 2705-2715.	8.2	254
48	Effects of hydrothermal treatment on the pyrolysis behavior of Chinese fan palm. <i>Bioresource Technology</i> , 2018, 247, 504-512.	4.8	34
49	Characterization of Aqueous Products Obtained from Hydrothermal Liquefaction of Rice Straw: Focus on Product Comparison via Microwave-Assisted and Conventional Heating. <i>Energy & Fuels</i> , 2018, 32, 510-516.	2.5	29
50	PYROLYSIS KINETICS OF HULLESS BARLEY STRAW USING THE DISTRIBUTED ACTIVATION ENERGY MODEL (DAEM) BY THE TG/DTA TECHNIQUE AND SEM/XRD CHARACTERIZATIONS FOR HULLESS BARLEY STRAW DERIVED BIOCHAR. <i>Brazilian Journal of Chemical Engineering</i> , 2018, 35, 1039-1050.	0.7	16
51	ENERGY AND MASS BALANCE IN THE PYROLYSIS PROCESS OF Eucalyptus WOOD. <i>Cerne</i> , 2018, 24, 288-294.	0.9	22
52	The Effect of pyrolysis conditions to produce levoglucosan from rice straw. <i>E3S Web of Conferences</i> , 2018, 67, 03026.	0.2	3
53	Catalytic fast pyrolysis of biomass over core-shell HZSM-5@silicalite-1 in a bench-scale two-stage fluidized-bed/fixed-bed reactor. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 136, 27-34.	2.6	19
54	Catalytic Cracking of Primary Tar Vapor from Biomass over High Ash-Containing Paper Sludge Ash. <i>Energy & Fuels</i> , 2018, 32, 12514-12522.	2.5	11

#	ARTICLE	IF	CITATIONS
55	State-of-the-art on the production and application of carbon nanomaterials from biomass. <i>Green Chemistry</i> , 2018, 20, 5031-5057.	4.6	256
56	Catalytic pyrolysis of lignin with red mud derived hierarchical porous catalyst for alkyl-phenols and hydrocarbons production. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 136, 8-17.	2.6	50
57	Catalytic Pyrolysis of Biomass and Polymer Wastes. <i>Catalysts</i> , 2018, 8, 659.	1.6	113
58	Study on two-step pyrolysis of walnut shell coupled with acid washing pretreatment. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 136, 1-7.	2.6	26
59	Maximizing Anhydrosugar Production from Fast Pyrolysis of Eucalyptus Using Sulfuric Acid as an Ash Catalyst Inhibitor. <i>Catalysts</i> , 2018, 8, 609.	1.6	9
60	Low-Energy Mild Electrocatalytic Hydrogenation of Bio-oil Using Ruthenium Anchored in Ordered Mesoporous Carbon. <i>ACS Applied Energy Materials</i> , 2018, 1, 6758-6763.	2.5	18
61	Conversion of Biomass and Waste to Value-add Products: Challenges and Opportunities. <i>International Journal of Waste Resources</i> , 2018, 08, .	0.2	0
62	Thermo-gravimetric characterization of biomass properties: A review. <i>IOP Conference Series: Materials Science and Engineering</i> , 0, 423, 012175.	0.3	33
63	Characteristics and Mechanism of Soot Formation during the Fast Pyrolysis of Biomass in an Entrained Flow Reactor. <i>Energy & Fuels</i> , 2018, 32, 11477-11488.	2.5	28
64	Hygroscopic transformation of woody biomass torrefaction for carbon storage. <i>Applied Energy</i> , 2018, 231, 768-776.	5.1	111
65	Relationship of thermal degradation behavior and chemical structure of lignin isolated from palm kernel shell under different process severities. <i>Fuel Processing Technology</i> , 2018, 181, 142-156.	3.7	83
66	Activated Carbons Derived from High-Temperature Pyrolysis of Lignocellulosic Biomass. <i>Journal of Carbon Research</i> , 2018, 4, 51.	1.4	77
67	Pyrolysis of tobacco wastes for bio-oil with aroma compounds. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 136, 248-254.	2.6	48
68	Kinetic study for the co-pyrolysis of lignocellulosic biomass and plastics using the distributed activation energy model. <i>Energy</i> , 2018, 165, 731-742.	4.5	82
69	Mechanism of cellulose fast pyrolysis: The role of characteristic chain ends and dehydrated units. <i>Combustion and Flame</i> , 2018, 198, 267-277.	2.8	72
70	Influence of impregnated copper and zinc on the pyrolysis of rice husk in a micro-fluidized bed reactor: Characterization and kinetics. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 21256-21268.	3.8	12
71	Co-pyrolysis of textile dyeing sludge and four typical lignocellulosic biomasses: Thermal conversion characteristics, synergetic effects and reaction kinetics. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 22135-22147.	3.8	36
72	Catalytic pyrolysis of xylan over alkali metal salts as revealed by synchrotron vacuum ultraviolet photoionization mass spectrometry. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 135, 94-100.	2.6	23

#	ARTICLE	IF	CITATIONS
73	Structure characterization and pyrolysis behavior of organosolv lignin isolated from corncob residue. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 136, 115-124.	2.6	33
74	Characterization of analytical fast pyrolysis vapors of medium-density fiberboard (mdf) using metal-modified HZSM-5. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 136, 87-95.	2.6	21
75	Pyrolysis mechanism of β -O-4 type lignin model polymers with different oxygen functional groups on C ₁ . <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 136, 169-177.	2.6	21
76	Fast screening for hydrolysable and condensed tannins in lignocellulosic biomass using reactive Py-GC/MS with in situ silylation. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 135, 242-250.	2.6	12
77	Fast pyrolysis of hot-water-extracted and soda-AQ-delignified okra (<i>Abelmoschus esculentus</i>) and miscanthus (<i>miscanthus x giganteus</i>) stalks by Py-GC/MS. <i>Biomass and Bioenergy</i> , 2018, 118, 172-179.	2.9	4
78	High performance quasi-solid-state supercapacitors with peanut-shell-derived porous carbon. <i>Journal of Power Sources</i> , 2018, 402, 133-146.	4.0	99
79	Pyrolysis behavior and economics analysis of the biomass pyrolytic polygeneration of forest farming waste. <i>Bioresource Technology</i> , 2018, 270, 189-197.	4.8	34
80	Catalytic fast pyrolysis of bamboo sawdust via a two-step bench scale bubbling fluidized bed/fixed bed reactor: Study on synergistic effect of alkali metal oxides and HZSM-5. <i>Energy Conversion and Management</i> , 2018, 176, 287-298.	4.4	50
81	Assessments of pyrolysis kinetics and mechanisms of biomass residues using thermogravimetry. <i>Bioresource Technology Reports</i> , 2018, 4, 40-49.	1.5	61
82	An overview of the effect of pyrolysis process parameters on biochar stability. <i>Bioresource Technology</i> , 2018, 270, 627-642.	4.8	275
83	Effect of ball-milling on crystallinity index, degree of polymerization and thermal stability of cellulose. <i>Bioresource Technology</i> , 2018, 270, 270-277.	4.8	69
84	Hydrogen production via steam reforming of acetic acid over biochar-supported nickel catalysts. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 18160-18168.	3.8	49
85	Hydrodynamic characteristics of sawdust in a pulsed slot-rectangular spouted bed. <i>Powder Technology</i> , 2018, 339, 995-1004.	2.1	8
86	Bio-char and bio-oil characteristics produced from the interaction of Enteromorpha clathrate volatiles and rice husk bio-char during co-pyrolysis in a sectional pyrolysis furnace: A complementary study. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 135, 219-230.	2.6	33
87	Critical analysis of non-isothermal kinetics of poultry litter pyrolysis. <i>Journal of Thermal Analysis and Calorimetry</i> , 2018, 134, 2329-2338.	2.0	5
88	Increasing Efficiency of Charcoal Production with Bio-Oil Recycling. <i>Energy & Fuels</i> , 2018, 32, 9650-9658.	2.5	18
89	Influence of NH ₃ concentration on biomass nitrogen-enriched pyrolysis. <i>Bioresource Technology</i> , 2018, 263, 350-357.	4.8	74
90	Catalytic deoxygenation co-pyrolysis of bamboo wastes and microalgae with biochar catalyst. <i>Energy</i> , 2018, 157, 472-482.	4.5	110

#	ARTICLE	IF	CITATIONS
91	Investigation of biomass torrefaction based on three major components: Hemicellulose, cellulose, and lignin. <i>Energy Conversion and Management</i> , 2018, 169, 228-237.	4.4	337
92	Mechanisms of Formation of H, HO, and Water and of Water Desorption in the Early Stages of Cellulose Pyrolysis. <i>Journal of Physical Chemistry C</i> , 2018, 122, 12168-12176.	1.5	16
93	Fast pyrolysis of corn stovers with ceramic ball heat carriers in a novel dual concentric rotary cylinder reactor. <i>Bioresource Technology</i> , 2018, 263, 467-474.	4.8	32
94	Synergistic effects on char and oil produced by the co-pyrolysis of pine wood, polyethylene and polyvinyl chloride. <i>Fuel</i> , 2018, 230, 359-367.	3.4	121
95	Investigation on pyrolysis mechanism of guaiacol as lignin model compound at atmospheric pressure. <i>Fuel</i> , 2018, 232, 632-638.	3.4	56
96	Modelling grate combustion of biomass and low rank fuels with CFD application. <i>Waste Management</i> , 2018, 78, 686-697.	3.7	33
97	Modeling pyrolytic behavior of pre-oxidized lignin using four representative β^2 -ether-type lignin-like model polymers. <i>Fuel Processing Technology</i> , 2018, 176, 221-229.	3.7	12
98	A review of recent research and developments in fast pyrolysis and bio-oil upgrading. <i>Biomass Conversion and Biorefinery</i> , 2018, 8, 739-773.	2.9	99
99	Effect of inorganic species on torrefaction process and product properties of rice husk. <i>Bioresource Technology</i> , 2018, 265, 450-455.	4.8	52
100	Catalytic co-pyrolysis of grape seeds and waste tyres for the production of drop-in biofuels. <i>Energy Conversion and Management</i> , 2018, 171, 1202-1212.	4.4	76
101	Fast pyrolysis of wheat straw in a dual concentric rotary cylinder reactor with ceramic balls as recirculated heat carrier. <i>Energy Conversion and Management</i> , 2018, 171, 855-862.	4.4	33
102	Soot formation during biomass pyrolysis: Effects of temperature, water-leaching, and gas-phase residence time. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 134, 484-494.	2.6	34
103	New Pyrolysis Model for Biomass Particles in a Thermally Thick Regime. <i>Energy & Fuels</i> , 2018, 32, 9399-9414.	2.5	18
104	Improved catalytic upgrading of simulated bio-oil via mild hydrogenation over bimetallic catalysts. <i>Fuel Processing Technology</i> , 2018, 179, 135-142.	3.7	31
105	Ester Crosslinking Enhanced Hydrophilic Cellulose Nanofibrils Aerogel. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 11979-11988.	3.2	51
106	Pyrolysis behavior and kinetics of corn residue pellets and eucalyptus wood chips in a macro thermogravimetric analyzer. <i>Case Studies in Thermal Engineering</i> , 2018, 12, 546-556.	2.8	60
107	Role of different chain end types in pyrolysis of glucose-based anhydro-sugars and oligosaccharides. <i>Fuel</i> , 2018, 234, 738-745.	3.4	29
108	Tar formation and evolution during biomass gasification: An experimental and theoretical study. <i>Fuel</i> , 2018, 234, 944-953.	3.4	40

#	ARTICLE	IF	CITATIONS
109	Influence of Biochar Addition on Nitrogen Transformation during Coprolysis of Algae and Lignocellulosic Biomass. <i>Environmental Science & Technology</i> , 2018, 52, 9514-9521.	4.6	100
110	Alternatives for Chemical and Biochemical Lignin Valorization: Hot Topics from a Bibliometric Analysis of the Research Published During the 2000â€“2016 Period. <i>Processes</i> , 2018, 6, 98.	1.3	47
111	Influence of inherent hierarchical porous char with alkali and alkaline earth metallic species on lignin pyrolysis. <i>Bioresource Technology</i> , 2018, 268, 323-331.	4.8	70
112	TSA-MS characterization and kinetic study of the pyrolysis process of various types of biomass based on the Gaussian multi-peak fitting and peak-to-peak approaches. <i>Fuel</i> , 2018, 234, 447-463.	3.4	32
113	Zeolite catalysts screening for production of phenolic bio-oils with high contents of monomeric aromatics/phenolics from hydrolysis lignin via catalytic fast pyrolysis. <i>Fuel Processing Technology</i> , 2018, 178, 362-370.	3.7	27
114	Improvement of aromatics production from catalytic pyrolysis of cellulose over metal-modified hierarchical HZSM-5. <i>Fuel Processing Technology</i> , 2018, 179, 319-323.	3.7	83
115	In-situ Characterization of Surface Components During Cellulose Pyrolysis. , 2018, , .		1
116	Novel findings in conversion mechanism of toluene as model compound of biomass waste tar in molten salt. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 134, 274-280.	2.6	25
117	Automated Advanced Calibration and Optimization of Thermochemical Models Applied to Biomass Gasification and Pyrolysis. <i>Energy & Fuels</i> , 2018, 32, 10144-10153.	2.5	12
118	Evolved gas analysis and slow pyrolysis mechanism of bamboo by thermogravimetric analysis, Fourier transform infrared spectroscopy and gas chromatography-mass spectrometry. <i>Bioresource Technology</i> , 2018, 266, 407-412.	4.8	43
119	Upgrading of biomass sourced pyrolysis oil review: focus on co-pyrolysis and vapour upgrading during pyrolysis. <i>Biomass Conversion and Biorefinery</i> , 2018, 8, 775-787.	2.9	32
120	General Characteristics of the Methods of Thermolysis of Metal Compounds. <i>Springer Series on Polymer and Composite Materials</i> , 2018, , 25-69.	0.5	0
121	Bio-oil upgrading by emulsification/microemulsification: A review. <i>Energy</i> , 2018, 161, 214-232.	4.5	129
122	Enhancement of aromatics production from catalytic pyrolysis of biomass over HZSM-5 modified by chemical liquid deposition. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 134, 439-445.	2.6	32
123	Catalytic Fast Pyrolysis of Biomass Impregnated with Potassium Phosphate in a Hydrogen Atmosphere for the Production of Phenol and Activated Carbon. <i>Frontiers in Chemistry</i> , 2018, 6, 32.	1.8	23
124	Characterization of Bio-Oil from Fast Pyrolysis of Palm Frond and Empty Fruit Bunch. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 349, 012035.	0.3	10
125	Codensification of <i>Eucommia ulmoides</i> Oliver stem with pyrolysis oil and char for solid biofuel: An optimization and characterization study. <i>Applied Energy</i> , 2018, 223, 347-357.	5.1	32
126	Oxidative torrefaction of spruce-pine-fir sawdust in a slot-rectangular spouted bed reactor. <i>Energy Conversion and Management</i> , 2018, 174, 276-287.	4.4	37

#	ARTICLE	IF	CITATIONS
127	Pyrolysis of poplar, cellulose and lignin: Effects of acidity and alkalinity of the metal oxide catalysts. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 134, 590-605.	2.6	97
128	Effect of different crystalline phase of ZnO/Cu nanocatalysts on cellulose pyrolysis conversion to specific chemical compounds. <i>Cellulose</i> , 2018, 25, 5623-5642.	2.4	10
129	Slow pyrolysis of by-product lignin from wood-based ethanol production – A detailed analysis of the produced chars. <i>Energy</i> , 2018, 164, 112-123.	4.5	30
130	Stepwise pyrolysis of mixed plastics and paper for separation of oxygenated and hydrocarbon condensates. <i>Applied Energy</i> , 2018, 229, 314-325.	5.1	61
131	Chemocatalytic Conversion of Cellulose into Key Platform Chemicals. <i>International Journal of Polymer Science</i> , 2018, 2018, 1-21.	1.2	21
132	Catalytic fast pyrolysis of biomass over zeolites for high quality bio-oil – A review. <i>Fuel Processing Technology</i> , 2018, 180, 32-46.	3.7	286
133	Experiment and Modeling Study of Glucose Pyrolysis: Formation of 3-Hydroxy- β -butyrolactone and 3-(2-H-Furanone). <i>Energy & Fuels</i> , 2018, 32, 9519-9529.	2.5	18
134	Catalytic mechanism of sulfuric acid in cellulose pyrolysis: A combined experimental and computational investigation. <i>Journal of Analytical and Applied Pyrolysis</i> , 2018, 134, 183-194.	2.6	44
135	From glucose-based carbohydrates to phenol-rich bio-oils integrated with syngas production via catalytic pyrolysis over an activated carbon catalyst. <i>Green Chemistry</i> , 2018, 20, 3346-3358.	4.6	87
136	Biochar stability assessment methods: A review. <i>Science of the Total Environment</i> , 2019, 647, 210-222.	3.9	352
137	Activated bio-chars derived from rice husk via one- and two-step KOH-catalyzed pyrolysis for phenol adsorption. <i>Science of the Total Environment</i> , 2019, 646, 1567-1577.	3.9	248
138	Mechanism and kinetics of thermal degradation of insulating materials developed from cellulose fiber and fire retardants. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 135, 3015-3027.	2.0	32
139	Effects of heating rate on fast pyrolysis behavior and product distribution of Jerusalem artichoke stalk by using TG-FTIR and Py-GC/MS. <i>Renewable Energy</i> , 2019, 132, 486-496.	4.3	82
140	Semi-quantitative and multivariate analysis of the thermal degradation of carbon-oxygen double bonds in biomass. <i>Journal of the Energy Institute</i> , 2019, 92, 923-932.	2.7	7
141	Pyrolysis of high ash sewage sludge: Kinetics and thermodynamic analysis using Coats-Redfern method. <i>Renewable Energy</i> , 2019, 131, 854-860.	4.3	260
142	Co-pyrolysis and catalytic co-pyrolysis of Enteromorpha clathrata and rice husk. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 135, 2613-2623.	2.0	33
143	The effect of lignin on the physicochemical, tribological, and morphological performance indicators of corn stalk fiber-reinforced friction materials. <i>Materials Research Express</i> , 2019, 6, 105325.	0.8	7
144	Biocrude production through hydroliquefaction of wood biomass in supercritical ethanol using iron silica and iron beta zeolite catalysts. <i>Journal of Chemical Technology and Biotechnology</i> , 2019, 94, 3736-3744.	1.6	17

#	ARTICLE	IF	CITATIONS
145	A kinetic study of roadside grass pyrolysis and digestate from anaerobic mono-digestion. <i>Bioresource Technology</i> , 2019, 292, 121935.	4.8	21
146	Catalytic thermochemical conversion of biomass for biofuel production: A comprehensive review. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 113, 109266.	8.2	289
147	Photocatalytic conversion of lignocellulosic biomass to valuable products. <i>Green Chemistry</i> , 2019, 21, 4266-4289.	4.6	180
148	Ex Situ Catalytic Pyrolysis of a Mixture of Polyvinyl Chloride and Cellulose Using Calcium Oxide for HCl Adsorption and Catalytic Reforming of the Pyrolysis Products. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 13960-13970.	1.8	38
149	Kinetic Parameters for Biomass under Self-Ignition Conditions: Low-Temperature Oxidation and Pyrolysis. <i>Energy & Fuels</i> , 2019, 33, 8606-8619.	2.5	10
150	Selectively biorefining levoglucosan from NaOH pretreated corncobs via fast pyrolysis. <i>Cellulose</i> , 2019, 26, 7877-7887.	2.4	18
151	Thermogravimetric and kinetic analysis to discern synergy during the co-pyrolysis of microalgae and swine manure digestate. <i>Biotechnology for Biofuels</i> , 2019, 12, 170.	6.2	56
152	Pyrolysis of Biomass. , 2019, , 217-244.		26
153	Catalytic fast pyrolysis of corn cob in ammonia with Ga/HZSM-5 catalyst for selective production of acetonitrile. <i>Bioresource Technology</i> , 2019, 290, 121800.	4.8	22
154	Experimental studies on high-quality bio-oil production via pyrolysis of Azolla by the use of a three metallic/modified pyrochar catalyst. <i>Bioresource Technology</i> , 2019, 291, 121802.	4.8	26
155	Estimation of the kinematic viscosities of bio-oil/alcohol blends: Kinematic viscosity-temperature formula and mixing rules. <i>Fuel</i> , 2019, 254, 115687.	3.4	13
156	Initial pyrolysis mechanism of cellulose revealed by in-situ DRIFT analysis and theoretical calculation. <i>Combustion and Flame</i> , 2019, 208, 273-280.	2.8	60
157	Fast pyrolysis behaviors of cedar in an infrared-heated fixed-bed reactor. <i>Bioresource Technology</i> , 2019, 290, 121739.	4.8	25
158	Thermal decomposition mechanism of O-acetyl-4-O-methylglucurono-xylan. <i>Journal of Molecular Modeling</i> , 2019, 25, 234.	0.8	4
159	Thermal Analysis of Nigerian Oil Palm Biomass with Sachet-Water Plastic Wastes for Sustainable Production of Biofuel. <i>Processes</i> , 2019, 7, 475.	1.3	17
160	Bio-oil and bio-char from lactuca scariola: significance of catalyst and temperature for assessing yield and quality of pyrolysis. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2022, 44, 1774-1787.	1.2	38
161	Strengthened dewaterability of coke-oven plant oily sludge by altering extracellular organics using Fe(II)-activated persulfate oxidation. <i>Science of the Total Environment</i> , 2019, 688, 1155-1161.	3.9	26
162	Study the reaction mechanism of catalytic reforming of acetic acid through the instantaneous gas production. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 21279-21289.	3.8	8

#	ARTICLE	IF	CITATIONS
163	A self-powered electrolytic process for glucose to hydrogen conversion. <i>Communications Chemistry</i> , 2019, 2, .	2.0	21
164	Assessing Proximate Composition, Extractive Concentration, and Lignin Quality to Determine Appropriate Parameters for Selection of Superior Eucalyptus Firewood. <i>Bioenergy Research</i> , 2019, 12, 626-641.	2.2	36
165	Preparation of mesoporous ZSM-5 catalysts using green templates and their performance in biomass catalytic pyrolysis. <i>Bioresource Technology</i> , 2019, 289, 121729.	4.8	61
166	Catalyzed pyrolysis of SRC poplar biomass. Alkaline carbonates and zeolites catalysts. <i>Energy</i> , 2019, 183, 1114-1122.	4.5	16
167	Advances in the Characterization Methods of Biomass Pyrolysis Products. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 12639-12655.	3.2	51
168	Experimental investigation of rice straw oxidative pyrolysis process in a hot-rod reactor. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 142, 104646.	2.6	18
169	Quick estimation of f(E) in the distributed activation energy model (DAEM): an inverse problem approach. <i>Journal of Mathematical Chemistry</i> , 2019, 57, 1949-1972.	0.7	2
170	Biochar from microwave pyrolysis of rice husk for tertiary wastewater treatment and soil nourishment. <i>Journal of Cleaner Production</i> , 2019, 235, 1073-1079.	4.6	90
171	Chemical-free pretreatment of unwashed oil palm empty fruit bunch by using locally isolated fungus (<i>Schizophyllum commune</i> ENN1) for delignification. <i>Food and Bioproducts Processing</i> , 2019, 118, 207-216.	1.8	6
172	Identification and structural characterization of oligomers formed from the pyrolysis of biomass. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 144, 104696.	2.6	22
173	Structure-reactivity relationships of biowaste-derived hydrochar on subsequent pyrolysis and gasification performance. <i>Energy Conversion and Management</i> , 2019, 199, 112014.	4.4	27
174	Recent progress in theoretical and computational studies on the utilization of lignocellulosic materials. <i>Green Chemistry</i> , 2019, 21, 9-35.	4.6	96
175	Direct conversion of cellulose and raw biomass to acetonitrile by catalytic fast pyrolysis in ammonia. <i>Green Chemistry</i> , 2019, 21, 812-820.	4.6	46
176	Determination of Total Chlorine Content in Sewage Sludge. <i>IOP Conference Series: Earth and Environmental Science</i> , 2019, 267, 062010.	0.2	0
177	Investigations on <i>Cunninghamia Lanceolata</i> Cedar Wood Pyrolysis by Thermogravimetric-Fourier Transform Infrared Analysis and a Modified Discrete Distributed Activation Energy Model Kinetic Method. <i>Energy & Fuels</i> , 2019, 33, 12499-12507.	2.5	9
178	Synergistic effects of wood fiber and polylactic acid during co-pyrolysis using TG-FTIR-MS and Py-GC/MS. <i>Energy Conversion and Management</i> , 2019, 202, 112212.	4.4	74
179	Bioenergetic potential of Ponkan peel waste (<i>Citrus reticulata</i>) pyrolysis by kinetic modelling and product characterization. <i>Biomass and Bioenergy</i> , 2019, 131, 105401.	2.9	30
180	Fractionation of biomass and plastic wastes to value-added products via stepwise pyrolysis: a state-of-art review. <i>Reviews in Chemical Engineering</i> , 2019, .	2.3	3

#	ARTICLE	IF	CITATIONS
181	Towards circular economy: integration of bio-waste into chemical supply chain. <i>Current Opinion in Chemical Engineering</i> , 2019, 26, 148-156.	3.8	35
182	Effect of cosolvent and addition of catalyst (HZSMâ€5) on hydrothermal liquefaction of macroalgae. <i>International Journal of Energy Research</i> , 2019, 43, 8841.	2.2	12
183	Quantitative structure-reactivity relationships for pyrolysis and gasification of torrefied xylan. <i>Energy</i> , 2019, 188, 116119.	4.5	14
184	Catalytic fast pyrolysis of alkali-pretreated bagasse for selective preparation of 4-vinylphenol. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 143, 104669.	2.6	19
185	A comprehensive study of sawdust torrefaction in a dual-compartment slot-rectangular spouted bed reactor. <i>Energy</i> , 2019, 189, 116306.	4.5	24
186	Influence of interactions between biomass components on physicochemical characteristics of char. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 144, 104704.	2.6	20
187	The Direct Conversion of Cellulose into 5â€Hydroxymethylfurfural with CrCl ₃ Composite Catalyst in Ionic Liquid under Mild Conditions. <i>ChemistrySelect</i> , 2019, 4, 181-189.	0.7	21
188	Depolymerization of Lignin over a Niâ€Pd Bimetallic Catalyst Using Isopropanol as an in Situ Hydrogen Source. <i>Energy & Fuels</i> , 2019, 33, 8786-8793.	2.5	31
189	A Comprehensive Characterization of Pyrolysis Oil from Softwood Barks. <i>Polymers</i> , 2019, 11, 1387.	2.0	43
190	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.	3.7	318
191	Advances in production and application of biochar from lignocellulosic feedstocks for remediation of environmental pollutants. <i>Bioresource Technology</i> , 2019, 292, 122030.	4.8	231
192	Mechanism research on catalytic pyrolysis of sulfated polysaccharide using ZSM-5 catalysts by Py-GC/MS and density functional theory studies. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 143, 104680.	2.6	28
193	THERMAL PROFILE OF WOOD SPECIES FROM THE BRAZILIAN SEMI-ARID REGION SUBMITTED TO PYROLYSIS. <i>Cerne</i> , 2019, 25, 44-53.	0.9	5
194	Overcoming biomass recalcitrance to enhance platform chemical production from soft wood by organosolvolytic coupled with fast pyrolysis. <i>Cellulose</i> , 2019, 26, 9687-9708.	2.4	18
195	Effect of potentially toxic metals (PTMs) on the thermal decomposition of phytoremediation plant wastes: Thermokinetic and gas evolution analysis by TG-DTG-MS. <i>Bioresource Technology</i> , 2019, 293, 122027.	4.8	7
196	Microwave-assisted pyrolysis of furfural residue in a continuously operated auger reactor: Characterization and analyses of condensates and non-condensable gases. <i>Energy</i> , 2019, 187, 116103.	4.5	10
197	TGA-FTIR study on the slow pyrolysis of lignin and cellulose-rich fractions derived from imidazolium-based ionic liquid pre-treatment of sugarcane straw. <i>Energy Conversion and Management</i> , 2019, 200, 112067.	4.4	77
198	The oxidation of C2-C4 diols and diol/TPGME blends in a motored engine. <i>Fuel</i> , 2019, 257, 116093.	3.4	14

#	ARTICLE	IF	CITATIONS
199	Investigations on pyrolysis of microalgae <i>Diplosphaera</i> sp. MM1 by TG-FTIR and Py-GC/MS: Products and kinetics. <i>Bioresource Technology</i> , 2019, 294, 122126.	4.8	29
200	Microwave-assisted catalytic pyrolysis of torrefied corn cob for phenol-rich bio-oil production over Fe modified bio-char catalyst. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 143, 104691.	2.6	56
201	Codensification technology as a critical strategy for energy recovery from biomass and other resources - A review. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 116, 109414.	8.2	43
202	Crude glycerol pretreatment for selective saccharification of lignocellulose via fast pyrolysis and enzyme hydrolysis. <i>Energy Conversion and Management</i> , 2019, 199, 111894.	4.4	38
203	Exploring the Reaction Mechanisms of Fast Pyrolysis of Xylan Model Compounds via Tandem Mass Spectrometry and Quantum Chemical Calculations. <i>Journal of Physical Chemistry A</i> , 2019, 123, 9149-9157.	1.1	12
204	Enhancement of bio-oil quality: Metal-induced microwave-assisted pyrolysis coupled with ex-situ catalytic upgrading over HZSM-5. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 137, 276-284.	2.6	19
205	Synergistic hydrothermal liquefaction of wheat stalk with homogeneous and heterogeneous catalyst at low temperature. <i>Bioresource Technology</i> , 2019, 278, 92-98.	4.8	47
206	Influence of physicochemical properties of metal modified ZSM-5 catalyst on benzene, toluene and xylene production from biomass catalytic pyrolysis. <i>Bioresource Technology</i> , 2019, 278, 248-254.	4.8	127
207	Optimization of Lignin Extraction from Pine Wood for Fast Pyrolysis by Using a β -Valerolactone-Based Binary Solvent System. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 4058-4068.	3.2	21
208	Investigation of the relevance between biomass pyrolysis polygeneration and washing pretreatment under different severities: Water, dilute acid solution and aqueous phase bio-oil. <i>Bioresource Technology</i> , 2019, 278, 26-33.	4.8	120
209	Thermal decomposition of castor oil, corn starch, soy protein, lignin, xylan, and cellulose during fast pyrolysis. <i>Bioresource Technology</i> , 2019, 278, 287-295.	4.8	85
210	Biomass pyrolysis: A review of the process development and challenges from initial researches up to the commercialisation stage. <i>Journal of Energy Chemistry</i> , 2019, 39, 109-143.	7.1	412
211	Comparison of Bio-Oil and Waste Cooking Oil as Binders during the Codensification of Biomass: Analysis of the Pellet Quality. <i>Bioenergy Research</i> , 2019, 12, 558-569.	2.2	11
212	Estimating biomass major chemical constituents from ultimate analysis using a random forest model. <i>Bioresource Technology</i> , 2019, 288, 121541.	4.8	49
213	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.	4.4	103
214	Enhancing and upgrading bio-oil during catalytic pyrolysis of cellulose: The synergistic effect of potassium cation and different anions impregnation. <i>Fuel Processing Technology</i> , 2019, 193, 338-347.	3.7	22
215	Slow pyrolysis characteristics of bamboo subfamily evaluated through kinetics and evolved gases analysis. <i>Bioresource Technology</i> , 2019, 289, 121674.	4.8	24
216	Application of Carbon-Based Nanomaterials as Fertilizers in Soils. , 2019, , 305-333.		8

#	ARTICLE	IF	CITATIONS
217	Catalytic pyrolysis of waste clay oil to produce high quality biofuel. Journal of Analytical and Applied Pyrolysis, 2019, 141, 104633.	2.6	31
218	Production of biojet fuels from biomass. , 2019, , 127-165.		4
219	Comparative study on the pyrolysis of cellulose and its model compounds. Fuel Processing Technology, 2019, 193, 131-140.	3.7	58
220	Investigating the correlation of biomass recalcitrance with pyrolysis oil using poplar as the feedstock. Bioresource Technology, 2019, 289, 121589.	4.8	18
221	Pyrolysis kinetics and synergistic effect in co-pyrolysis of Samanea saman seeds and polyethylene terephthalate using thermogravimetric analyser. Bioresource Technology, 2019, 289, 121608.	4.8	113
222	Products distribution and generation pathway of cellulose pyrolysis. Journal of Cleaner Production, 2019, 232, 1309-1320.	4.6	65
223	Machine learning prediction of biochar yield and carbon contents in biochar based on biomass characteristics and pyrolysis conditions. Bioresource Technology, 2019, 288, 121527.	4.8	202
224	New sight on the lignin torrefaction pretreatment: Relevance between the evolution of chemical structure and the properties of torrefied gaseous, liquid, and solid products. Bioresource Technology, 2019, 288, 121528.	4.8	62
225	Mechanism insight into the fast pyrolysis of xylose, xylobiose and xylan by combined theoretical and experimental approaches. Combustion and Flame, 2019, 206, 177-188.	2.8	42
226	Kinetic Analysis of Digestate Slow Pyrolysis with the Application of the Master-Plots Method and Independent Parallel Reactions Scheme. Molecules, 2019, 24, 1657.	1.7	33
227	Effects of KCl and CaCl ₂ on the evolution of anhydro sugars in reaction intermediates during cellulose fast pyrolysis. Fuel, 2019, 251, 307-315.	3.4	33
228	The application and validity of various reaction kinetic models on woody biomass pyrolysis. Energy, 2019, 179, 784-791.	4.5	48
229	Modelling the combustion of thermally thick biomass particles. Powder Technology, 2019, 353, 110-124.	2.1	18
230	An overview of biomass thermochemical conversion technologies in Malaysia. Science of the Total Environment, 2019, 680, 105-123.	3.9	125
231	Pyrolysis kinetics of biomass wastes using isoconversional methods and the distributed activation energy model. Bioresource Technology, 2019, 288, 121485.	4.8	125
232	Pyrolysis of Chinese chestnut shells: Effects of temperature and Fe presence on product composition. Bioresource Technology, 2019, 287, 121444.	4.8	50
233	A study of coke and char formation during pyrolysis of rice husk. Journal of Thermal Analysis and Calorimetry, 2019, 138, 3587-3601.	2.0	6
234	Production of acetonitrile via catalytic fast pyrolysis of biomass derived polylactic acid under ammonia atmosphere. Journal of Analytical and Applied Pyrolysis, 2019, 140, 376-384.	2.6	13

#	ARTICLE	IF	CITATIONS
235	Scaling sorbent materials for real oil-sorbing applications and environmental disasters. <i>MRS Energy & Sustainability</i> , 2019, 6, 1.	1.3	10
236	Promoting air gasification of corn straw through biological pretreatment by biogas slurry: An initiative experimental study. <i>Fuel Processing Technology</i> , 2019, 191, 60-70.	3.7	19
237	The selective cleavage of lignin aliphatic C–O linkages by solvent-assisted fast pyrolysis (SAFP). <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , 2019, 94, 297-307.	0.9	7
238	Deoxydehydration of glycerol in presence of rhenium compounds: reactivity and mechanistic aspects. <i>Catalysis Science and Technology</i> , 2019, 9, 3036-3046.	2.1	23
239	A comparative study of thermochemical characteristics of lignocellulosic biomasses. <i>Bioresource Technology Reports</i> , 2019, 8, 100186.	1.5	37
240	One-step methodology for preparing physically activated biocarbons from agricultural biomass waste. <i>Journal of Environmental Chemical Engineering</i> , 2019, 7, 103113.	3.3	25
241	Comparative study on the pyrolysis behaviors of rice straw under different washing pretreatments of water, acid solution, and aqueous phase bio-oil by using TG-FTIR and Py-GC/MS. <i>Fuel</i> , 2019, 252, 1-9.	3.4	137
242	Catalytic oxidation of lignin to valuable biomass-based platform chemicals: A review. <i>Fuel Processing Technology</i> , 2019, 191, 181-201.	3.7	206
243	Solid Waste as a Renewable Source of Energy: A Comparative Study on Thermal and Kinetic Behavior of Three Organic Solid Wastes. <i>Energy & Fuels</i> , 2019, 33, 4378-4388.	2.5	21
244	Progress in understanding the four dominant intra-particle phenomena of lignocellulose pyrolysis: chemical reactions, heat transfer, mass transfer, and phase change. <i>Green Chemistry</i> , 2019, 21, 2868-2898.	4.6	102
245	Pyrolytic behavior and kinetic of wood sawdust at isothermal and non-isothermal conditions. <i>Renewable Energy</i> , 2019, 142, 284-294.	4.3	27
246	Cross-Linking with Polyethylenimine Confers Better Functional Characteristics to an Immobilized β -glucosidase from <i>Exiguobacterium antarcticum</i> B7. <i>Catalysts</i> , 2019, 9, 223.	1.6	6
247	Synthesis and Characterization of Novel Catalytic Materials Using Industrial Slag: Influence of Alkaline Pretreatment, Synthesis Time and Temperature. <i>Topics in Catalysis</i> , 2019, 62, 738-751.	1.3	9
248	Pyrolysis and Combustion Kinetic Study and Complementary Study of Ash Fusibility Behavior of Sugarcane Bagasse, Sugarcane Straw, and Their Pellets—Case Study of Agro-Industrial Residues. <i>Energy & Fuels</i> , 2019, 33, 3227-3238.	2.5	19
249	A review of gasification of bio-oil for gas production. <i>Sustainable Energy and Fuels</i> , 2019, 3, 1600-1622.	2.5	28
250	Pyrolysis behavior of cellulose in a fixed bed reactor: Residue evolution and effects of parameters on products distribution and bio-oil composition. <i>Energy</i> , 2019, 175, 1067-1074.	4.5	35
251	Reforming of tar from biomass gasification in a hybrid catalysis-plasma system: A review. <i>Applied Catalysis B: Environmental</i> , 2019, 250, 250-272.	10.8	133
252	Effect of volatiles interaction during pyrolysis of cellulose, hemicellulose, and lignin at different temperatures. <i>Fuel</i> , 2019, 248, 1-7.	3.4	69

#	ARTICLE	IF	CITATIONS
253	Kinetics, thermodynamics, and physical characterization of corn stover (<i>Zea mays</i>) for solar biomass pyrolysis potential analysis. <i>Bioresource Technology</i> , 2019, 284, 466-473.	4.8	92
254	In-situ upgrading of bio-tar over Mg-Ni-Mo catalyst supported by KOH treated activated charcoal in supercritical ethanol. <i>Fuel</i> , 2019, 247, 334-343.	3.4	22
255	Synergistic effects on the co-combustion of medicinal biowastes with coals of different ranks. <i>Renewable Energy</i> , 2019, 140, 380-389.	4.3	15
256	Comparative Study on Pyrolysis of Wet and Dry Torrefied Beech Wood and Wheat Straw. <i>Energy & Fuels</i> , 2019, 33, 3267-3274.	2.5	17
257	Thermogravimetric Characteristics and Non-isothermal Kinetics of Macro-Algae With an Emphasis on the Possible Partial Gasification at Higher Temperatures. <i>Frontiers in Energy Research</i> , 2019, 7, .	1.2	10
258	Utilization of bio-based glycolaldehyde aqueous solution in organic synthesis: application to the synthesis of 2,3-dihydrofurans. <i>Green Chemistry</i> , 2019, 21, 2061-2069.	4.6	53
259	Catalytic performance of potassium in lignocellulosic biomass pyrolysis based on an optimized three-parallel distributed activation energy model. <i>Bioresource Technology</i> , 2019, 281, 412-420.	4.8	31
260	Investigating the interactions between lignocellulosic biomass and synthetic polymers during co-pyrolysis by simultaneous thermal and spectroscopic methods. <i>Biomass Conversion and Biorefinery</i> , 2019, 9, 593-608.	2.9	26
261	Research of Measure and Control System for Laminar Burning Velocity in Constant Volume Combustion Chamber. <i>Journal of Physics: Conference Series</i> , 2019, 1176, 052037.	0.3	0
262	Biomass derived porous carbon for CO ₂ capture. <i>Carbon</i> , 2019, 148, 164-186.	5.4	356
263	Investigation of the relationship between functional groups evolution and combustion kinetics of microcrystalline cellulose using in situ DRIFTS. <i>Fuel</i> , 2019, 248, 56-64.	3.4	20
264	Tuning the Properties of Iron-Doped Porous Graphitic Carbon Synthesized by Hydrothermal Carbonization of Cellulose and Subsequent Pyrolysis. <i>ACS Omega</i> , 2019, 4, 4448-4460.	1.6	40
265	Characterization of soluble portions from cellulose, hemicellulose, and lignin methanolysis. <i>Fuel</i> , 2019, 246, 394-401.	3.4	16
266	Distribution-free estimation of f(E) in the distributed activation energy model based on matrix singular value decomposition method. <i>Chemical Papers</i> , 2019, 73, 1893-1902.	1.0	1
267	Product-oriented decomposition of lignocellulose catalyzed by novel polyoxometalates-ionic liquid mixture. <i>Bioresource Technology</i> , 2019, 283, 174-183.	4.8	15
268	<i>Miscanthus x giganteus</i> Stem Versus Leaf-Derived Lignins Differing in Monolignol Ratio and Linkage. <i>International Journal of Molecular Sciences</i> , 2019, 20, 1200.	1.8	25
269	Characterization of biochar and byproducts from slow pyrolysis of hinoki cypress. <i>Bioresource Technology Reports</i> , 2019, 6, 217-222.	1.5	83
270	Evaluation of Sr-substituted Ca ₂ Fe ₂ O ₅ as oxygen carrier in microalgae chemical looping gasification. <i>Fuel Processing Technology</i> , 2019, 191, 93-103.	3.7	36

#	ARTICLE	IF	CITATIONS
271	Flame combustion of single wet-torrefied wood particle: Effects of pretreatment temperature and residence time. <i>Fuel</i> , 2019, 250, 160-167.	3.4	7
272	Pyrolysis of black cumin seed: Significance of catalyst and temperature product yields and chromatographic characterization. <i>Journal of Liquid Chromatography and Related Technologies</i> , 2019, 42, 331-350.	0.5	56
273	The accuracy and efficiency of GA and PSO optimization schemes on estimating reaction kinetic parameters of biomass pyrolysis. <i>Energy</i> , 2019, 176, 582-588.	4.5	163
274	Unveiling the Pyrolysis Mechanisms of Hemicellulose: Experimental and Theoretical Studies. <i>Energy & Fuels</i> , 2019, 33, 4352-4360.	2.5	44
275	Mechanism study on the pyrolysis of the typical ether linkages in biomass. <i>Fuel</i> , 2019, 249, 146-153.	3.4	48
276	In-depth comparison of the physicochemical characteristics of bio-char derived from biomass pseudo components: Hemicellulose, cellulose, and lignin. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 140, 195-204.	2.6	117
277	Synergistic effects of co-pyrolysis of macroalgae and polyvinyl chloride on bio-oil/bio-char properties and transferring regularity of chlorine. <i>Fuel</i> , 2019, 246, 319-329.	3.4	109
278	Pilot scale recovery of lignin from black liquor and advanced characterization of the final product. <i>Separation and Purification Technology</i> , 2019, 221, 226-235.	3.9	28
279	Characteristics of dehydration during rice husk pyrolysis and catalytic mechanism of dehydration reaction with NiO/ γ -Al ₂ O ₃ as catalyst. <i>Fuel</i> , 2019, 245, 131-138.	3.4	34
280	Comparison study of organosolv pretreatment on hybrid pennisetum for enzymatic saccharification and lignin isolation. <i>Fuel</i> , 2019, 249, 334-340.	3.4	62
281	Thermogravimetric and kinetic studies of metal (Ru/Fe) impregnated banana pseudo-stem (Musa) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	4.8	31
282	Development of Upgraded Bio-Oil Via Liquefaction and Pyrolysis. <i>Studies in Surface Science and Catalysis</i> , 2019, 178, 231-256.	1.5	30
283	In-depth experimental study of pyrolysis characteristics of raw and cooking treated shrimp shell samples. <i>Renewable Energy</i> , 2019, 139, 730-738.	4.3	17
284	Integrated process of lignocellulosic biomass torrefaction and pyrolysis for upgrading bio-oil production: A state-of-the-art review. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 107, 20-36.	8.2	186
285	Levoglucosan and its hydrolysates via fast pyrolysis of lignocellulose for microbial biofuels: A state-of-the-art review. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 105, 215-229.	8.2	65
286	The thermochemical conversion of biomass into biofuels. , 2019, , 327-368.		28
287	Preparation and characterization of microemulsion fuels from diesel and model compound of walnut shell pyrolysis oil. <i>Fuel</i> , 2019, 243, 478-484.	3.4	9
288	Lignin-derived platform molecules through TEMPO catalytic oxidation strategies. <i>Progress in Energy and Combustion Science</i> , 2019, 72, 59-89.	15.8	55

#	ARTICLE	IF	CITATIONS
289	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.	3.7	78
290	Degradation of wood by UV light: A study by EGA-MS and Py-GC/MS with on line irradiation system. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 139, 224-232.	2.6	41
291	Optimization of hydrothermal co-liquefaction of seaweeds with lignocellulosic biomass: Merging 2nd and 3rd generation feedstocks for enhanced bio-oil production. <i>Energy</i> , 2019, 173, 413-422.	4.5	111
292	Thermogravimetric characterization and pyrolysis of soybean hulls. <i>Bioresource Technology Reports</i> , 2019, 6, 183-189.	1.5	33
293	Effect of methanol addition on properties and aging reaction mechanism of bio-oil during storage. <i>Fuel</i> , 2019, 244, 499-507.	3.4	38
294	Preliminary study in using ultrasound as a post-treatment of pyrolytic bio-oils. , 2019, , .		0
295	Theoretical Calculations of the Multistep Reaction Mechanism Involved in Asparagine Pyrolysis Supported by Degree of Rate Control and Thermodynamic Control Analyses. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 4847.	1.3	3
296	Thermocatalytic Biomass Processing. <i>Russian Journal of Applied Chemistry</i> , 2019, 92, 1465-1479.	0.1	7
297	Effect of Pyrolysis Temperature on the Characteristics of Wood Vinegar Derived from Chinese Fir Waste: A Comprehensive Study on Its Growth Regulation Performance and Mechanism. <i>ACS Omega</i> , 2019, 4, 19054-19062.	1.6	30
298	Determination of the activation energy of water hyacinth (<i>Eichornia crassipes</i>) pyrolysis. <i>International Journal of Green Energy</i> , 2019, 16, 1571-1576.	2.1	8
299	The optimization of in-situ tar reduction and syngas production on a 60-kW three-staged biomass gasification system: theoretical and practical approach. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 1835-1846.	2.9	7
300	Potentials, Limitations, Co-Benefits, and Trade-Offs of Biochar Applications to Soils for Climate Change Mitigation. <i>Land</i> , 2019, 8, 179.	1.2	79
301	A review on lignin structure, pretreatments, fermentation reactions and biorefinery potential. <i>Bioresource Technology</i> , 2019, 271, 462-472.	4.8	386
302	Comprehensive insights into xylan structure evolution via multi-perspective analysis during slow pyrolysis process. <i>Fuel Processing Technology</i> , 2019, 186, 1-7.	3.7	13
303	TG-FTIR study of evolved gas in the decomposition of different types of tobacco. Effect of the addition of SBA-15. <i>Thermochimica Acta</i> , 2019, 671, 209-219.	1.2	18
304	Online photoionization mass spectrometric evaluation of catalytic co-pyrolysis of cellulose and polyethylene over HZSM-5. <i>Bioresource Technology</i> , 2019, 275, 130-137.	4.8	34
305	On-line photoionization mass spectrometric study of lignin and lignite co-pyrolysis: Insight into the synergetic effect. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 137, 285-292.	2.6	31
306	Microwave assisted and conventional pyrolysis of MDF – Characterization of the produced biochars. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 138, 218-230.	2.6	52

#	ARTICLE	IF	CITATIONS
307	Auger reactors for pyrolysis of biomass and wastes. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 102, 372-409.	8.2	191
308	Interaction between Acetic Acid and Glycerol: A Model for Secondary Reactions during Holocellulose Pyrolysis. <i>Journal of Physical Chemistry A</i> , 2019, 123, 674-681.	1.1	12
309	Physicochemical characteristics and pyrolysis performance of corn stalk torrefied in aqueous ammonia by microwave heating. <i>Bioresource Technology</i> , 2019, 274, 83-88.	4.8	31
310	Advances in thermochemical conversion of woody biomass to energy, fuels and chemicals. <i>Biotechnology Advances</i> , 2019, 37, 589-597.	6.0	249
311	Electrochemical performance and microbial community analysis in air cathode microbial fuel cells fuelled with pyrolytic liquor. <i>Bioelectrochemistry</i> , 2019, 126, 12-19.	2.4	22
312	Pyrolytic behavior of lignocellulosic-based polysaccharides. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 137, 121-131.	2.0	26
313	The potential of lignocellulosic biomass precursors for biochar production: Performance, mechanism and wastewater application—A review. <i>Industrial Crops and Products</i> , 2019, 128, 405-423.	2.5	204
314	Co-pyrolysis and co-gasification of biomass and polyethylene: Thermal behaviors, volatile products and characteristics of their residues. <i>Journal of the Energy Institute</i> , 2019, 92, 1926-1935.	2.7	37
315	Key Factors Affecting the Recalcitrance and Conversion Process of Biomass. <i>Bioenergy Research</i> , 2019, 12, 1-20.	2.2	71
316	Thermal characteristics and product formation mechanism during pyrolysis of penicillin fermentation residue. <i>Bioresource Technology</i> , 2019, 277, 46-54.	4.8	40
317	Effect of torrefaction on rice straw physicochemical characteristics and particulate matter emission behavior during combustion. <i>Bioresource Technology</i> , 2019, 278, 1-8.	4.8	56
318	Acetic acid conversion reactions on basic and acidic catalysts under biomass fast pyrolysis conditions. <i>Molecular Catalysis</i> , 2019, 465, 33-42.	1.0	15
319	Surface characterization of <i>Miscanthus × giganteus</i> and Willow subjected to torrefaction. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 138, 231-241.	2.6	22
320	TG-FTIR-MS study of synergistic effects during co-pyrolysis of corn stalk and high-density polyethylene (HDPE). <i>Energy Conversion and Management</i> , 2019, 181, 202-213.	4.4	143
321	Effect of tobacco stem-derived biochar on soil metal immobilization and the cultivation of tobacco plant. <i>Journal of Soils and Sediments</i> , 2019, 19, 2313-2321.	1.5	33
322	Pyrolysis kinetics of biomasses pretreated by gas-pressurized torrefaction. <i>Energy Conversion and Management</i> , 2019, 182, 117-125.	4.4	52
323	Moisture content as a design and operational parameter for fast pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 139, 73-86.	2.6	24
324	Mechanism study of aromatics production from furans with methanol over zeolite catalysts. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 139, 87-95.	2.6	19

#	ARTICLE	IF	CITATIONS
325	Mixed fermentation of <i>Aspergillus niger</i> and <i>Candida shehatae</i> to produce bioethanol with ionic-liquid-pretreated bagasse. <i>3 Biotech</i> , 2019, 9, 41.	1.1	4
326	Influence of torrefaction on properties of activated carbon obtained from physical activation of pyrolysis char. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2019, 41, 2246-2256.	1.2	4
327	Hard carbons for sodium-ion batteries: Structure, analysis, sustainability, and electrochemistry. <i>Materials Today</i> , 2019, 23, 87-104.	8.3	537
328	Drop-in biofuels from the co-pyrolysis of grape seeds and polystyrene. <i>Chemical Engineering Journal</i> , 2019, 377, 120246.	6.6	57
329	Pyrolysis of sawdust with various Fe-based catalysts: Influence of support characteristics on hydrogen-rich gas production. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 137, 29-36.	2.6	30
330	Co-pyrolysis of macroalgae and lignocellulosic biomass. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 136, 2001-2016.	2.0	43
331	Catalytic fast co-pyrolysis of bamboo sawdust and waste tire using a tandem reactor with cascade bubbling fluidized bed and fixed bed system. <i>Energy Conversion and Management</i> , 2019, 180, 60-71.	4.4	79
332	Thermal decomposition of brominated flame retardants (BFRs): Products and mechanisms. <i>Progress in Energy and Combustion Science</i> , 2019, 70, 212-259.	15.8	168
333	Investigate the interactions between biomass components during pyrolysis using in-situ DRIFTS and TGA. <i>Chemical Engineering Science</i> , 2019, 195, 767-776.	1.9	60
334	Thermal Characteristics and Kinetic Analysis of Woody Biomass Pyrolysis in the Presence of Bifunctional Alkali Metal Ceramics. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 238-248.	3.2	31
335	Modeling of biomass pyrolysis kinetics using sequential multi-step reaction model. <i>Fuel</i> , 2019, 237, 1057-1067.	3.4	38
336	Fabrication of bean dreg-derived carbon with high adsorption for methylene blue: Effect of hydrothermal pretreatment and pyrolysis process. <i>Bioresource Technology</i> , 2019, 274, 525-532.	4.8	54
337	Hydrodeoxygenation of guaiacol as a model compound of lignin-derived pyrolysis bio-oil over zirconia-supported Rh catalyst: Process optimization and reaction kinetics. <i>Fuel</i> , 2019, 239, 1015-1027.	3.4	56
338	Target-Oriented Fuel Design for the Homogeneous Charge Autoignition Combustion Mode: A Case Study of an-Heptane"PODE3"Ethanol Mixture. 2. Identification of a Functional Configuration of Fuel Components. <i>Energy & Fuels</i> , 2019, 33, 31-49.	2.5	3
339	Bifunctional and recyclable Dawson-type polyoxometalates catalyze oxidative degradation of lignocellulose to selectively produce phthalates. <i>Bioresource Technology</i> , 2019, 273, 677-681.	4.8	7
340	Pyrolysis of blend (oil palm biomass and sawdust) biomass using TG-MS. <i>Bioresource Technology</i> , 2019, 274, 439-446.	4.8	81
341	Experimental and Theoretical Investigation of the Pyrolysis of Furfural. <i>Journal of Physical Chemistry A</i> , 2019, 123, 103-110.	1.1	21
342	High-toughness PLA/Bamboo cellulose nanowhiskers bionanocomposite strengthened with silylated ultrafine bamboo-char. <i>Composites Part B: Engineering</i> , 2019, 165, 174-182.	5.9	64

#	ARTICLE	IF	CITATIONS
343	Py-GC/MS analysis on product distribution of two-staged biomass pyrolysis. Journal of Analytical and Applied Pyrolysis, 2019, 138, 62-69.	2.6	37
344	The influence of combined pretreatment with surfactant/ultrasonic and hydrothermal carbonization on fuel properties, pyrolysis and combustion behavior of corn stalk. Bioresource Technology, 2019, 271, 427-438.	4.8	36
345	Real-time monitoring biomass pyrolysis via on-line photoionization ultrahigh-resolution mass spectrometry. Fuel, 2019, 235, 962-971.	3.4	29
346	Selective production of anhydrosugars and furfural from fast pyrolysis of corncobs using sulfuric acid as an inhibitor and catalyst. Chemical Engineering Journal, 2019, 358, 743-751.	6.6	39
347	Insights into the evolution of chemical structures in lignocellulose and non-lignocellulose biowastes during hydrothermal carbonization (HTC). Fuel, 2019, 236, 960-974.	3.4	180
348	Pyrolysis of palm kernel shell with internal recycling of heavy oil. Bioresource Technology, 2019, 272, 77-82.	4.8	51
349	Fast Pyrolysis of Corn Stalks at Different Growth Stages to Selectively Produce 4-Vinyl Phenol and 5-Hydroxymethyl Furfural. Waste and Biomass Valorization, 2019, 10, 3867-3878.	1.8	14
350	A kinetic study of lignin pyrolysis over base catalyst during steam exploded depolymerization. Catalysis Today, 2019, 327, 226-234.	2.2	16
351	Effect of fractional condensers on characteristics, compounds distribution and phenols selection of bio-oil from pine sawdust fast pyrolysis. Journal of the Energy Institute, 2020, 93, 811-821.	2.7	17
352	Lignocellulosic biofuel production: review of alternatives. Biomass Conversion and Biorefinery, 2020, 10, 779-791.	2.9	59
353	Activity of Fly Ash-Derived ZSM-5 and Zeolite X on Fast Pyrolysis of Millettia (Pongamia) Pinnata Waste. Waste and Biomass Valorization, 2020, 11, 715-724.	1.8	7
354	Biomass-Based Photocatalysts for Environmental Applications. Environmental Chemistry for A Sustainable World, 2020, , 55-86.	0.3	6
355	Hydrothermal liquefaction of Glycyrrhiza glabra L. (Liquorice): Effects of catalyst on variety compounds and chromatographic characterization. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2024, 42, 2471-2484.	1.2	26
356	Transformation of industrial steel slag with different structure-modifying agents for synthesis of catalysts. Catalysis Today, 2020, 355, 768-780.	2.2	5
357	Are the typical organic components in biomass pyrolyzed bio-oil available for leaching of alkali and alkaline earth metallic species (AAEMs) from biomass?. Fuel, 2020, 260, 116347.	3.4	63
358	Determination of laminar burning characteristics of a surrogate for a pyrolysis fuel using constant volume method. Energy, 2020, 190, 116315.	4.5	19
359	Impacts of temperature on evolution of char structure during pyrolysis of lignin. Science of the Total Environment, 2020, 699, 134381.	3.9	52
360	Performance of calcium-added molten alkali carbonates for high-temperature desulfurization from pyrolysis gases. Renewable Energy, 2020, 145, 2245-2252.	4.3	6

#	ARTICLE	IF	CITATIONS
361	Metalloporphyrin as a Biomimetic Catalyst for the Catalytic Oxidative Degradation of Lignin to Produce Aromatic Monomers. <i>Waste and Biomass Valorization</i> , 2020, 11, 4481-4489.	1.8	8
362	Improvements of global models for the determination of the kinetic parameters associated to the thermal degradation of lignocellulosic materials under low heating rates. <i>Renewable Energy</i> , 2020, 146, 1498-1509.	4.3	13
363	Nonlinear Synergistic Effects in Thermochemical Co-processing of Wastes for Sustainable Energy. <i>Green Energy and Technology</i> , 2020, , 117-148.	0.4	3
364	Prediction of pyrolytic product composition and yield for various grass biomass feedstocks. <i>Biomass Conversion and Biorefinery</i> , 2020, 10, 663-674.	2.9	24
365	Current perspective on pretreatment technologies using lignocellulosic biomass: An emerging biorefinery concept. <i>Fuel Processing Technology</i> , 2020, 199, 106244.	3.7	386
366	Evolved gas analysis-mass spectrometry and isoconversional methods for the estimation of component-specific kinetic data in wood pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 145, 104725.	2.6	17
367	The applicability of catalytic esterified biomass-pyrolysis-oil surrogates in diesel engine. <i>Fuel Processing Technology</i> , 2020, 198, 106251.	3.7	11
368	Occurrence, formation, environmental fate and risks of environmentally persistent free radicals in biochars. <i>Environment International</i> , 2020, 134, 105172.	4.8	125
369	Pyrolysis and copyrolysis of three lignocellulosic biomass residues from the agro-food industry: A comparative study. <i>Waste Management</i> , 2020, 102, 362-370.	3.7	79
370	Valorization of cattle manure by thermoconversion process in a rotary kiln reactor to produce environmentally friendly products. <i>Bioenergy Research</i> , 2020, 13, 605-617.	2.2	22
371	Leaching of alkali and alkaline earth metallic species (AAEMs) with phenolic substances in bio-oil and its effect on pyrolysis characteristics of moso bamboo. <i>Fuel Processing Technology</i> , 2020, 200, 106332.	3.7	27
372	Catalytic effects of CaO, Al ₂ O ₃ , Fe ₂ O ₃ , and red mud on <i>Pteris vittata</i> combustion: Emission, kinetic and ash conversion patterns. <i>Journal of Cleaner Production</i> , 2020, 252, 119646.	4.6	60
373	Investigation of improving the yields and qualities of pyrolysis products with combination rod-milled and torrefaction pretreatment. <i>Renewable Energy</i> , 2020, 151, 446-453.	4.3	26
374	Effects of NH ₄ H ₂ PO ₄ -Loading and Temperature on the Two-Stage Pyrolysis of Biomass: Analytical Pyrolysis-Gas Chromatography/Mass Spectrometry Study. <i>Journal of Biobased Materials and Bioenergy</i> , 2020, 14, 76-82.	0.1	8
375	Methanation of syngas from biomass gasification: An overview. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 4223-4243.	3.8	119
376	Ash pretreatment of pine and biosolids produces biochars with enhanced capacity for organic micropollutant removal from surface water, wastewater, and stormwater. <i>Environmental Science: Water Research and Technology</i> , 2020, 6, 635-644.	1.2	16
377	Pyrolysis and combustion kinetics of <i>Sida cordifolia</i> L. using thermogravimetric analysis. <i>Bioresource Technology</i> , 2020, 299, 122602.	4.8	39
378	Lowering the pyrolysis temperature of lignocellulosic biomass by H ₂ SO ₄ loading for enhancing the production of platform chemicals. <i>Chemical Engineering Journal</i> , 2020, 385, 123809.	6.6	34

#	ARTICLE	IF	CITATIONS
379	Lignocellulose-based adsorbents: A spotlight review of the effective parameters on carbon dioxide capture process. <i>Chemosphere</i> , 2020, 246, 125756.	4.2	40
380	Syngas production at low temperature via the combination of hydrothermal pretreatment and activated carbon catalyst along with value-added utilization of tar and bio-char. <i>Energy Conversion and Management</i> , 2020, 205, 112382.	4.4	26
381	Challenges and alternatives for the adequacy of hydrothermal carbonization of lignocellulosic biomass in cleaner production systems: A review. <i>Journal of Cleaner Production</i> , 2020, 252, 119899.	4.6	98
382	Co-pyrolysis of lignocellulosic and macroalgae biomasses for the production of biochar – A review. <i>Bioresource Technology</i> , 2020, 297, 122408.	4.8	121
383	Investigating the pyrolysis temperature to define the use of charcoal. <i>European Journal of Wood and Wood Products</i> , 2020, 78, 193-204.	1.3	25
384	Greener synthesis of lignin nanoparticles and their applications. <i>Green Chemistry</i> , 2020, 22, 612-636.	4.6	280
385	Gas and tar generation behavior during flash pyrolysis of wood pellet and plastic. <i>Journal of Material Cycles and Waste Management</i> , 2020, 22, 547-555.	1.6	13
386	Kinetics of pyrolysis and gasification of cotton stalk in the central parts of India. <i>Fuel</i> , 2020, 263, 116752.	3.4	61
387	Reduced chemical kinetics for microscale pyrolysis of softwood and hardwood. <i>Bioresource Technology</i> , 2020, 301, 122619.	4.8	19
389	Pyrolysate composition and silylation efficiency in analytical pyrolysis of glucans as a function of pyrolysis time. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 145, 104747.	2.6	3
390	Minimizing tar formation whilst enhancing syngas production by integrating biomass torrefaction pretreatment with chemical looping gasification. <i>Applied Energy</i> , 2020, 260, 114315.	5.1	75
391	Co-pyrolysis of Sewage Sludge and Rice Straw: Thermal Behavior and Char Characteristic Evaluations. <i>Energy & Fuels</i> , 2020, 34, 607-615.	2.5	35
392	Bamboo wastes catalytic pyrolysis with N-doped biochar catalyst for phenols products. <i>Applied Energy</i> , 2020, 260, 114242.	5.1	141
393	Pyrolysis of sludge and biomass residues. , 2020, , 155-181.		3
394	Kinetic modelling of waste wood devolatilization during pyrolysis based on thermogravimetric data and solar pyrolysis reactor performance. <i>Fuel</i> , 2020, 261, 116459.	3.4	87
395	Recent advances on ammonia-based pretreatments of lignocellulosic biomass. <i>Bioresource Technology</i> , 2020, 298, 122446.	4.8	99
396	Physicochemical structure and reactivity of char from torrefied rice husk: Effects of inorganic species and torrefaction temperature. <i>Fuel</i> , 2020, 262, 116667.	3.4	35
397	Sustainable biomass production under CO ₂ conditions and effective wet microalgae lipid extraction for biodiesel production. <i>Journal of Cleaner Production</i> , 2020, 247, 119398.	4.6	128

#	ARTICLE	IF	CITATIONS
398	Reducing emission of NO _x and SO _x precursors while enhancing char production from pyrolysis of sewage sludge by torrefaction pretreatment. <i>Energy</i> , 2020, 192, 116620.	4.5	53
399	Vapor–solid interaction among cellulose, hemicellulose and lignin. <i>Fuel</i> , 2020, 263, 116681.	3.4	34
400	Bioenergy and emission characterizations of catalytic combustion and pyrolysis of litchi peels via TG-FTIR-MS and Py-GC/MS. <i>Renewable Energy</i> , 2020, 148, 1074-1093.	4.3	50
401	The effect of two pretreatment levels on the pyrolysis characteristics of water hyacinth. <i>Renewable Energy</i> , 2020, 151, 514-527.	4.3	14
402	Energy production from steam gasification processes and parameters that contemplate in biomass gasifier – A review. <i>Bioresource Technology</i> , 2020, 297, 122481.	4.8	93
403	A review on the catalytic pyrolysis of biomass for the bio-oil production with ZSM-5: Focus on structure. <i>Fuel Processing Technology</i> , 2020, 199, 106301.	3.7	159
404	Microalgae pyrolysis under isothermal and non-isothermal conditions. <i>Algal Research</i> , 2020, 51, 102031.	2.4	12
405	On deconvolution for understanding synergistic effects in co-pyrolysis of pinewood and polypropylene. <i>Applied Energy</i> , 2020, 279, 115811.	5.1	56
406	Comprehensive insights into the influences of acid-base properties of chemical pretreatment reagents on biomass pyrolysis behavior and wood vinegar properties. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 151, 104907.	2.6	22
407	One-step production of carbon nanocages for supercapacitors and sodium-ion batteries. <i>Journal of Electroanalytical Chemistry</i> , 2020, 878, 114551.	1.9	13
408	Investigation on the Catalytic Behavior of Alkali Metals and Alkaline Earth Metals on the Biomass Pyrolysis Assisted with Real-Time Monitoring. <i>Energy & Fuels</i> , 2020, 34, 12654-12664.	2.5	36
409	Molten salt pyrolysis of biomass: The mechanism of volatile reforming and pyrolysis. <i>Energy</i> , 2020, 213, 118801.	4.5	74
410	A review on selective production of value-added chemicals via catalytic pyrolysis of lignocellulosic biomass. <i>Science of the Total Environment</i> , 2020, 749, 142386.	3.9	145
411	Features and Commercial Performance of a System of Biomass Gasification for Simultaneous Clean Heating and Activated Carbon Production. <i>ACS Omega</i> , 2020, 5, 26110-26115.	1.6	3
412	The effects of kraft lignin on the physicochemical quality of briquettes produced with sugarcane bagasse and on the characteristics of the bio-oil obtained via slow pyrolysis. <i>Fuel Processing Technology</i> , 2020, 210, 106561.	3.7	29
413	Assessing the Performance of Various Stochastic Optimization Methods on Chemical Kinetic Modeling of Combustion. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 19212-19225.	1.8	4
414	Hydrothermal liquefaction and gasification of biomass and model compounds: a review. <i>Green Chemistry</i> , 2020, 22, 8210-8232.	4.6	85
415	Pyrolysis of pine pellets catalyzed by blast furnace gas ash. <i>Chemical Engineering and Processing: Process Intensification</i> , 2020, 156, 108094.	1.8	9

#	ARTICLE	IF	CITATIONS
416	Identifying the primary reactions and products of fast pyrolysis of alkali lignin. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 151, 104917.	2.6	24
417	Role of porous structure and active O-containing groups of activated biochar catalyst during biomass catalytic pyrolysis. <i>Energy</i> , 2020, 210, 118646.	4.5	66
418	Herbicidal effects of wood vinegar on nitrophilous plant communities. <i>Food and Energy Security</i> , 2020, 9, e253.	2.0	14
419	Pyrolysis of cocoa shell and its bioenergy potential: evaluating the kinetic triplet, thermodynamic parameters, and evolved gas analysis using TGA-FTIR. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 723-739.	2.9	33
420	The synergistic effects of polyvinyl chloride and biomass during combustible solid waste pyrolysis: Experimental investigation and modeling. <i>Energy Conversion and Management</i> , 2020, 222, 113237.	4.4	22
421	Effect of hydrogen bond donor on the choline chloride-based deep eutectic solvent-mediated extraction of lignin from pine wood. <i>International Journal of Biological Macromolecules</i> , 2020, 165, 187-197.	3.6	67
422	Ultrasonic and microwave assisted organosolv pretreatment of pine wood for producing pyrolytic sugars and phenols. <i>Industrial Crops and Products</i> , 2020, 157, 112921.	2.5	28
423	Potential of stepwise pyrolysis for on-site treatment of agro-residues and enrichment of value-added chemicals. <i>Waste Management</i> , 2020, 118, 667-676.	3.7	11
424	Seeded-growth preparation of high-performance Ni/MgAl ₂ O ₄ catalysts for tar steam reforming. <i>New Journal of Chemistry</i> , 2020, 44, 13692-13700.	1.4	11
425	Influence of biochar with loaded metal salts on the cracking of pyrolysis volatiles from corn straw. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2020, , 1-10.	1.2	7
426	<i>Development of meso-microstructure in MFI zeolites via nanocrystalline cellulose templating for conversion of lignocellulosic biomass to aromatic hydrocarbons</i>. , 2020, , .		0
427	A review on pyrolysis of protein-rich biomass: Nitrogen transformation. <i>Bioresource Technology</i> , 2020, 315, 123801.	4.8	131
428	Independent parallel pyrolysis kinetics of cellulose, hemicelluloses and lignin at various heating rates analyzed by evolutionary computation. <i>Energy Conversion and Management</i> , 2020, 221, 113165.	4.4	77
429	Assessment of biomass demineralization on gasification: From experimental investigation, mechanism to potential application. <i>Science of the Total Environment</i> , 2020, 726, 138634.	3.9	28
430	Biomass pyrolysis with alkaline-earth-metal additive for co-production of bio-oil and biochar-based soil amendment. <i>Science of the Total Environment</i> , 2020, 743, 140760.	3.9	44
431	Kinetics of catalytic and non-catalytic pyrolysis of Nerium Oleander. <i>Fuel</i> , 2020, 280, 118591.	3.4	22
432	Fixed Bed Reactor Pyrolysis of Rape Straw: Effect of Dilute Acid Pickling on the Production of Bio-oil and Enhancement of Sugars. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 17564-17574.	1.8	4
433	Impact of torrefaction on biomass properties depending on temperature and operation time. <i>Science of the Total Environment</i> , 2020, 740, 140086.	3.9	51

#	ARTICLE	IF	CITATIONS
434	Recent Advances in the Catalytic Depolymerization of Lignin towards Phenolic Chemicals: A Review. ChemSusChem, 2020, 13, 4296-4317.	3.6	207
435	A Review of Recent Advances in Biomass Pyrolysis. Energy & Fuels, 2020, 34, 15557-15578.	2.5	256
436	Insights into pyrolysis of torrefied-biomass, plastics/tire and blends: Thermochemical behaviors, kinetics and evolved gas analyses. Biomass and Bioenergy, 2020, 143, 105852.	2.9	25
437	Bio-oils from vacuum ablative pyrolysis of torrefied tobacco residues. RSC Advances, 2020, 10, 34986-34995.	1.7	25
438	Exploring catalytic pyrolysis of Palm Shell over HZSM-5 by gas Chromatography/mass spectrometry and photoionization mass spectrometry. Journal of Analytical and Applied Pyrolysis, 2020, 152, 104946.	2.6	8
439	Sustainable biochar as an electrocatalysts for the oxygen reduction reaction in microbial fuel cells. Green Energy and Environment, 2021, 6, 644-659.	4.7	77
440	Effect of torrefaction on the pyrolysis behavior, kinetics, and phenolic products of lignin. Biomass Conversion and Biorefinery, 2020, , 1.	2.9	6
441	Catalytic Pyrolysis of Lignocellulosic Biomass: The Influence of the Catalyst Regeneration Sequence on the Composition of Upgraded Pyrolysis Oils over a H-ZSM-5/Al-MCM-41 Catalyst Mixture. ACS Omega, 2020, 5, 28992-29001.	1.6	12
442	Isoconversional determination of the apparent reaction models governing pyrolysis of wood, straw and sewage sludge, with an approach to rate modelling. Renewable Energy, 2020, 161, 972-987.	4.3	25
443	Volatile-Char interactions during biomass pyrolysis: Understanding the potential origin of char activity. Bioresource Technology, 2020, 316, 123938.	4.8	52
444	Hemicellulose Recovery from Spent-Sulfite-Liquor: Lignin Removal by Adsorption to Resins for Improvement of the Ultrafiltration Process. Molecules, 2020, 25, 3435.	1.7	3
445	Formation of persistent free radicals in biochar derived from rice straw based on a detailed analysis of pyrolysis kinetics. Science of the Total Environment, 2020, 715, 136575.	3.9	57
446	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
447	Recent Insights into Lignocellulosic Biomass Pyrolysis: A Critical Review on Pretreatment, Characterization, and Products Upgrading. Processes, 2020, 8, 799.	1.3	95
448	Revising the dark fermentative H ₂ research and development scenario – An overview of the recent advances and emerging technological approaches. Biomass and Bioenergy, 2020, 140, 105673.	2.9	22
449	Catalytic pyrolysis of poplar sawdust: Excellent hydrocarbon selectivity and activity of hollow zeolites. Bioresource Technology, 2020, 317, 123954.	4.8	23
450	Understanding the torrefaction of woody and agricultural biomasses through their extracted macromolecular components. Part 2: Torrefaction model. Energy, 2020, 210, 118451.	4.5	5
451	Effect of process wastewater recycling on the chemical evolution and formation mechanism of hydrochar from herbaceous biomass during hydrothermal carbonization. Journal of Cleaner Production, 2020, 277, 123281.	4.6	67

#	ARTICLE	IF	CITATIONS
452	Bio-Oil Characterizations of <i>Spirulina Platensis</i> Residue (SPR) Pyrolysis Products for Renewable Energy Development. <i>Key Engineering Materials</i> , 2020, 849, 47-52.	0.4	2
453	Biomass-derived activated carbons for the removal of pharmaceutical micropollutants from wastewater: A review. <i>Separation and Purification Technology</i> , 2020, 253, 117536.	3.9	147
454	Pyrolysis of torrefied herbal medicine wastes: Characterization of pyrolytic products. <i>Energy</i> , 2020, 210, 118455.	4.5	9
455	Co-pyrolysis of softwood with waste mussel shells: Biochar analysis. <i>Fuel</i> , 2020, 282, 118792.	3.4	27
456	Synthesis and formation mechanism of biomass-based mesoporous graphitic carbon. <i>Fuel Processing Technology</i> , 2020, 209, 106543.	3.7	43
457	Impact of acid-modified ZSM-5 on hydrocarbon yield of catalytic co-pyrolysis of poplar wood sawdust and high-density polyethylene by Py-GC/MS analysis. <i>Journal of the Energy Institute</i> , 2020, 93, 2435-2443.	2.7	22
458	Catalytic co-pyrolysis of waste corn stover and high-density polyethylene for hydrocarbon production: The coupling effect of potassium and HZSM-5 zeolite. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 150, 104895.	2.6	16
459	Insights in quantitative indexes for better grouping and classification of Eucalyptus clones used in combustion and energy cogeneration processes in Brazil. <i>Biomass and Bioenergy</i> , 2020, 143, 105835.	2.9	12
460	Pyrolysis study on cattle manure: From conventional analytical method to online study of pyrolysis photoionization time-of-flight mass spectrometry. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 151, 104916.	2.6	27
461	Efficient ex-situ catalytic upgrading of biomass pyrolysis vapors to produce methylfurans and phenol over bio-based activated carbon. <i>Biomass and Bioenergy</i> , 2020, 142, 105794.	2.9	21
462	Effect of pre-acetylation of hydroxyl functional groups by choline chloride/acetic anhydride on subsequent lignin pyrolysis. <i>Bioresource Technology</i> , 2020, 317, 124034.	4.8	11
463	Impacts of co-feeding alcohols on pyrolysis of cellulose. <i>Journal of the Energy Institute</i> , 2020, 93, 2474-2487.	2.7	0
464	Thermal degradation characteristics, kinetics, thermodynamic, and reaction mechanism analysis of pistachio shell pyrolysis for its bioenergy potential. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 4847-4861.	2.9	49
465	Using analytical pyrolysis and scanning electron microscopy to evaluate charcoal formation of four wood taxa from the caatinga of north-east Brazil. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 151, 104909.	2.6	6
466	Maximizing production of sugar and ultrafine lignin particles from recalcitrant softwood by different acids-assisted organosolvolytic and fast pyrolysis. <i>Journal of Cleaner Production</i> , 2020, 276, 122827.	4.6	13
467	Biomass-derived nanocarbon materials for biological applications: challenges and prospects. <i>Journal of Materials Chemistry B</i> , 2020, 8, 9668-9678.	2.9	16
468	Current Status of Energy Production from Solid Biomass in North-West Italy. <i>Energies</i> , 2020, 13, 4390.	1.6	9
469	Bio-oil Upgrading via Ether Extraction, Looped-Oxide Catalytic Deoxygenation, and Mild Electrocatalytic Hydrogenation Techniques. <i>Energy & Fuels</i> , 2020, 34, 9725-9733.	2.5	15

#	ARTICLE	IF	CITATIONS
470	Characterization of Miombo species used by rural communities as fuelwood in Northern Mozambique. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 0, , 1-10.	1.2	10
471	Thermogravimetric Analysis–Fourier Transform Infrared Spectroscopy Study on the Effect of Extraction Pretreatment on the Pyrolysis Properties of Eucalyptus Wood Waste. <i>ACS Omega</i> , 2020, 5, 23364-23371.	1.6	7
472	Insight into KOH activation mechanism during biomass pyrolysis: Chemical reactions between O-containing groups and KOH. <i>Applied Energy</i> , 2020, 278, 115730.	5.1	222
473	Thermal effects of asphalt SARA fractions, kinetic parameter calculation using isoconversional method and distribution models. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 146, 1577-1592.	2.0	16
474	Recent advances in the use of catalysts based on natural products for the conversion of CO ₂ into cyclic carbonates. <i>Green Chemistry</i> , 2020, 22, 7665-7706.	4.6	110
475	A TG-IR study on the co-pyrolysis characteristics of oily sludge and crops. <i>Biomass Conversion and Biorefinery</i> , 2020, , 1.	2.9	6
476	Determination of Hemicellulose, Cellulose, and Lignin Content in Different Types of Biomasses by Thermogravimetric Analysis and Pseudocomponent Kinetic Model (TGA-PKM Method). <i>Processes</i> , 2020, 8, 1048.	1.3	84
477	Torrefaction of <i>Acacia nilotica</i> : Oxygen Distribution and Carbon Densification Mechanism Based on In-Depth Analyses of Solid, Liquid, and Gaseous Products. <i>Energy & Fuels</i> , 2020, 34, 12586-12597.	2.5	17
478	Investigation on the thermal degradation behavior of enzymatic hydrolysis lignin with or without steam explosion treatment characterized by TG-FTIR and Py-GC/MS. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 5825-5834.	2.9	14
479	Product distribution of compounds in bio-oil produced from fast pyrolysis combined with looping technique process of palm solid waste biomass. <i>AIP Conference Proceedings</i> , 2020, , .	0.3	0
480	Progress in Modeling of Biomass Fast Pyrolysis: A Review. <i>Energy & Fuels</i> , 2020, 34, 15195-15216.	2.5	40
481	Comparative study of the fuel quality and torrefaction performance of biomass and its molded pellets: effects of temperature and residence time. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2020, , 1-10.	1.2	7
482	Catalytic Transfer Hydrogenolysis of Native Lignin to Monomeric Phenols over a Ni–Pd Bimetallic Catalyst. <i>Energy & Fuels</i> , 2020, 34, 9754-9762.	2.5	34
483	Recent Progress in Quantum Chemistry Modeling on the Pyrolysis Mechanisms of Lignocellulosic Biomass. <i>Energy & Fuels</i> , 2020, 34, 10384-10440.	2.5	91
484	Recent Advances of Producing Biobased N-Containing Compounds via Thermo-Chemical Conversion with Ammonia Process. <i>Energy & Fuels</i> , 2020, 34, 10441-10458.	2.5	35
485	Effect of steam explosion pre-treatment on methane generation from <i>Ludwigia grandiflora</i> . <i>Biomass and Bioenergy</i> , 2020, 142, 105771.	2.9	13
486	Cyclic Compound Formation Mechanisms during Pyrolysis of Typical Aliphatic Acidic Amino Acids. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 16968-16978.	3.2	32
487	Effects of mixture of CO ₂ /CH ₄ as pyrolysis atmosphere on pine wood pyrolysis products. <i>Renewable Energy</i> , 2020, 162, 1243-1254.	4.3	20

#	ARTICLE	IF	CITATIONS
488	Review of the fuel properties, characterisation techniques, and pre-treatment technologies for oil palm empty fruit bunches. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 471-497.	2.9	12
489	Co-pyrolysis of waste biomass and waste plastics (polystyrene and waste nitrile gloves) into renewable fuel and value-added chemicals. <i>Carbon Resources Conversion</i> , 2020, 3, 145-155.	3.2	61
490	Oxidative torrefaction for cleaner utilization of biomass for soil amendment. <i>Cleaner Engineering and Technology</i> , 2020, 1, 100033.	2.1	12
491	CFD-DEM Simulation of Biomass Pyrolysis in Fluidized-Bed Reactor with a Multistep Kinetic Scheme. <i>Energies</i> , 2020, 13, 5358.	1.6	15
492	Preparation and Characterisation of Activated Carbon from Palm Mixed Waste Treated with Trona Ore. <i>Molecules</i> , 2020, 25, 5028.	1.7	14
493	Relating features and combustion behavior of biomasses from the Amazonian agroforestry chain. <i>Biomass Conversion and Biorefinery</i> , 2020, , 1.	2.9	11
494	EPR detection of key radicals during coking process of lignin monomer pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 152, 104948.	2.6	20
495	Applications of microwave energy in gas production and tar removal during biomass gasification. <i>Sustainable Energy and Fuels</i> , 2020, 4, 5927-5946.	2.5	23
496	In situ and Ex situ Catalytic Pyrolysis of Microalgae and Integration With Pyrolytic Fractionation. <i>Frontiers in Chemistry</i> , 2020, 8, 786.	1.8	22
497	Co-pyrolysis of biomass blends: Characterization, kinetic and thermodynamic analysis. <i>Biomass and Bioenergy</i> , 2020, 143, 105839.	2.9	35
498	Development of a Fluidized-Bed Reactor for Oxidative Torrefaction of Biowastes. <i>Thermal Engineering (English Translation of Teploenergetika)</i> , 2020, 67, 626-633.	0.4	6
499	Insight into the Fe ₂ O ₃ /CaO-based chemical looping process for biomass conversion. <i>Bioresource Technology</i> , 2020, 310, 123384.	4.8	22
500	Pyrolysis of banana leaves biomass: Physico-chemical characterization, thermal decomposition behavior, kinetic and thermodynamic analyses. <i>Bioresource Technology</i> , 2020, 310, 123464.	4.8	131
501	A cleaner process for conversion of invasive weed (<i>Prosopis juliflora</i>) into energy-dense fuel: kinetics, energy, and exergy analysis of pyrolysis process. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 3067-3080.	2.9	11
502	Effect of CaO on Pyrolysis Products and Reaction Mechanisms of a Corn Stover. <i>ACS Omega</i> , 2020, 5, 10276-10287.	1.6	46
503	A critical review of the production and advanced utilization of biochar via selective pyrolysis of lignocellulosic biomass. <i>Bioresource Technology</i> , 2020, 312, 123614.	4.8	319
504	Study on catalytic pyrolysis mechanism of seaweed polysaccharide monomer. <i>Combustion and Flame</i> , 2020, 218, 1-11.	2.8	30
505	Co-pyrolysis of eucalyptus and sodium polyacrylate: optimization and synergistic effect. <i>Fuel</i> , 2020, 277, 118115.	3.4	18

#	ARTICLE	IF	CITATIONS
506	Torrefaction: a sustainable method for transforming of agri-wastes to high energy density solids (biocoal). <i>Reviews in Environmental Science and Biotechnology</i> , 2020, 19, 463-488.	3.9	49
507	Recent advances in catalytic co-pyrolysis of biomass and plastic waste for the production of petroleum-like hydrocarbons. <i>Bioresource Technology</i> , 2020, 310, 123473.	4.8	199
508	Emerging developments in two-dimensional correlation spectroscopy (2D-COS). <i>Journal of Molecular Structure</i> , 2020, 1217, 128405.	1.8	56
510	Insight into Pyrolysis Kinetics on Lignin Surface via In-situ Spectroscopic Techniques. , 2020, , .		1
511	Pyrolytic behaviors, kinetics, decomposition mechanisms, product distributions and joint optimization of <i>Lentinus edodes</i> stipe. <i>Energy Conversion and Management</i> , 2020, 213, 112858.	4.4	43
512	Potential of cattle manure pyrolysis liquid as an alternative environmentally friendly source of agricultural fungicides. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 149, 104862.	2.6	8
513	Conversion of end-of-life cotton banknotes into liquid fuel using mini-pyrolysis plant. <i>Journal of Cleaner Production</i> , 2020, 267, 121612.	4.6	17
514	Recent advances in mechanochemical production of chemicals and carbon materials from sustainable biomass resources. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 130, 109944.	8.2	128
515	Experimental and kinetic modelling investigation on the effects of crystallinity on cellulose pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 152, 104863.	2.6	14
516	Thermal pyrolysis and kinetic parameter determination of mango leaves using common and new proposed parallel kinetic models. <i>RSC Advances</i> , 2020, 10, 18160-18179.	1.7	30
517	Microwave-Assisted Catalytic Fast Pyrolysis of Biomass for Hydrocarbon Production with Physically Mixed MCM-41 and ZSM-5. <i>Catalysts</i> , 2020, 10, 685.	1.6	6
518	Influence of biomass components, temperature and pressure on the pyrolysis behavior and biochar properties of pine nut shells. <i>Bioresource Technology</i> , 2020, 313, 123682.	4.8	65
519	<i>Ex situ</i> catalytic fast pyrolysis of soy sauce residue with HZSM-5 for co-production of aromatic hydrocarbons and supercapacitor materials. <i>RSC Advances</i> , 2020, 10, 23331-23340.	1.7	9
520	Mild hydrogenation of bio-oil and its derived phenolic monomers over Pt-Ni bimetal-based catalysts. <i>Applied Energy</i> , 2020, 275, 115154.	5.1	47
521	Multi-scale complexities of solid acid catalysts in the catalytic fast pyrolysis of biomass for bio-oil production – A review. <i>Progress in Energy and Combustion Science</i> , 2020, 80, 100852.	15.8	137
522	Catalytic fast pyrolysis of biomass with Ni-P-MCM-41 to selectively produce levoglucosenone. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 148, 104824.	2.6	38
523	Synergy of Hydrothermal and Organic Acid Washing Treatments in Chinese Fir Wood Vinegar Preparation. <i>ACS Omega</i> , 2020, 5, 13685-13693.	1.6	6
524	Upgrading rice husk via oxidative torrefaction: Characterization of solid, liquid, gaseous products and a comparison with non-oxidative torrefaction. <i>Fuel</i> , 2020, 275, 117936.	3.4	96

#	ARTICLE	IF	CITATIONS
525	Recent Advances in Hydroliquefaction of Biomass for Bio-oil Production Using In Situ Hydrogen Donors. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 16987-17007.	1.8	32
526	Catalytic fast pyrolysis of walnut shell with K/AC catalyst for the production of phenolic-rich bio-oil. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 2451-2462.	2.9	8
527	A review of conversion of lignocellulose biomass to liquid transport fuels by integrated refining strategies. <i>Fuel Processing Technology</i> , 2020, 208, 106485.	3.7	103
528	Optimal strategy for clean and efficient biomass combustion based on ash deposition tendency and kinetic analysis. <i>Journal of Cleaner Production</i> , 2020, 271, 122529.	4.6	23
529	Reactive Catalytic Fast Pyrolysis of Biomass Over Molybdenum Oxide Catalysts: A Parametric Study. <i>Energy & Fuels</i> , 2020, 34, 4678-4684.	2.5	19
530	Upgrading of biomass pellets by torrefaction and its influence on the hydrophobicity, mechanical property, and fuel quality. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 2061-2070.	2.9	32
531	A novel hybrid iron-calcium catalyst/absorbent for enhanced hydrogen production via catalytic tar reforming with in-situ CO ₂ capture. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 10709-10723.	3.8	32
532	Combustion characteristics of co-combusted municipal solid wastes and sewage sludge. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 0, , 1-13.	1.2	10
533	Extraction of High-Purity Lignins via Catalyst-free Organosolv Pulping from Low-Input Crops. <i>Biomacromolecules</i> , 2020, 21, 1929-1942.	2.6	30
534	Carbonization of corncobs for the preparation of barbecue charcoal and combustion characteristics of corncob char. <i>Waste Management</i> , 2020, 105, 560-565.	3.7	19
535	Catalytic Pyrolysis of Guaiacol over Ni/La ³⁺ -Modified Hierarchical HZSM-5. <i>ChemistrySelect</i> , 2020, 5, 3011-3017.	0.7	8
536	PAH sampling and quantification from woody biomass fast pyrolysis in a pyroprobe reactor with a modified tar sampling system. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 147, 104802.	2.6	9
537	Biochar based catalysts for the abatement of emerging pollutants: A review. <i>Chemical Engineering Journal</i> , 2020, 394, 124856.	6.6	129
538	Effect of Montmorillonite clay on pyrolysis of paper mill waste. <i>Bioresource Technology</i> , 2020, 307, 123161.	4.8	17
539	Single-step and multi-step thermokinetic study – Deconvolution method as a simple pathway for describe properly the biomass pyrolysis for energy conversion. <i>Energy Conversion and Management</i> , 2020, 209, 112653.	4.4	60
540	Effects of the novel catalyst Ni ₂ O ₈ ·2H ₂ O/K ₂ O/TiO ₂ on efficient lignin depolymerization. <i>RSC Advances</i> , 2020, 10, 8558-8567.	1.7	4
541	Analysis of Coal Spontaneous Combustion by Thermodynamic Methods. <i>Combustion Science and Technology</i> , 2021, 193, 2305-2330.	1.2	17
542	Biological conversion of lignin and its derivatives to fuels and chemicals. <i>Korean Journal of Chemical Engineering</i> , 2020, 37, 387-401.	1.2	24

#	ARTICLE	IF	CITATIONS
543	Pyrolysis of food waste over a Pt catalyst in CO ₂ atmosphere. <i>Journal of Hazardous Materials</i> , 2020, 393, 122449.	6.5	35
544	Combustion and emission characteristics of a diesel-powered generator running with N-butanol/coffee ground pyrolysis oil/diesel blended fuel. <i>Energy</i> , 2020, 206, 118201.	4.5	19
545	Levoglucosan: a promising platform molecule?. <i>Green Chemistry</i> , 2020, 22, 5859-5880.	4.6	109
546	Novel Sensitivity Study for Biomass Directional Devolatilization by Random Forest Models. <i>Energy & Fuels</i> , 2020, 34, 8414-8423.	2.5	8
547	Catalytic Toluene Reforming with In Situ CO ₂ Capture via an Iron-Calcium Hybrid Absorbent for Promoted Hydrogen Production. <i>Energy Technology</i> , 2020, 8, 2000083.	1.8	10
548	In-situ catalytic pyrolysis upgradation of microalgae into hydrocarbon rich bio-oil: Effects of nitrogen and carbon dioxide environment. <i>Bioresource Technology</i> , 2020, 314, 123758.	4.8	36
549	Pyrolysis kinetics study of biomass waste using Shuffled Complex Evolution algorithm. <i>Fuel Processing Technology</i> , 2020, 208, 106509.	3.7	23
550	Enhanced production of 4-ethyl phenol from activated carbon catalyzed fast pyrolysis of bagasse with 9,10-dihydroanthracene as a hydrogen donor. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 150, 104880.	2.6	11
551	High-performance of activated biocarbon based on agricultural biomass waste applied for 2,4-D herbicide removing from water: adsorption, kinetic and thermodynamic assessments. <i>Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes</i> , 2020, 55, 767-782.	0.7	17
552	Simultaneous Catalytic Conversion of Acid-Pretreated Biomass into High-Quality Syngas and Bio-oil at Mild Temperature. <i>Energy & Fuels</i> , 2020, 34, 8366-8375.	2.5	4
553	Nitrogen in bio-oil produced from hydrothermal liquefaction of biomass: A review. <i>Chemical Engineering Journal</i> , 2020, 401, 126030.	6.6	165
554	Current advancement on the isolation, characterization and application of lignin. <i>International Journal of Biological Macromolecules</i> , 2020, 162, 985-1024.	3.6	223
555	On the Design of Novel Biofoams Using Lignin, Wheat Straw, and Sugar Beet Pulp as Precursor Material. <i>ACS Omega</i> , 2020, 5, 17078-17089.	1.6	13
556	Pyrolysis kinetics of short rotation coppice poplar biomass. <i>Energy</i> , 2020, 207, 118191.	4.5	46
557	Development of hybrid gel beads of lignocellulosic compounds derived from agricultural waste: Efficient lead adsorbents for a comparative biosorption. <i>Journal of Molecular Liquids</i> , 2020, 315, 113715.	2.3	5
558	Electrochemically assisted pyrolysis of rice straw in molten carbonates. <i>Renewable Energy</i> , 2020, 159, 929-937.	4.3	7
559	Insights into the production of upgraded biofuels using Mg-loaded mesoporous ZSM-5 zeolites. <i>ChemCatChem</i> , 2020, 12, 5236-5249.	1.8	9
560	Comparison of HZSM-5 catalyzed and non-catalyzed bio-oil produced using fast pyrolysis from pine needles. <i>Biomass and Bioenergy</i> , 2020, 139, 105641.	2.9	15

#	ARTICLE	IF	CITATIONS
561	Insight into structural features of soluble portions from cellulose, cellobiose and monosaccharide methanolysis by GC/MS and ESI FTICRMS. <i>Renewable Energy</i> , 2020, 150, 777-785.	4.3	6
562	Enhanced Acid-Catalyzed Lignin Depolymerization in a Continuous Reactor with Stable Activity. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 4096-4106.	3.2	25
563	Impact of ball-milling and ionic liquid pretreatments on pyrolysis kinetics and behaviors of crystalline cellulose. <i>Bioresource Technology</i> , 2020, 305, 123044.	4.8	31
564	Phase selection of calcium carbonate crystals under the induction of lignin monomer model compounds. <i>CrystEngComm</i> , 2020, 22, 2454-2461.	1.3	6
565	Enhanced removal of aqueous Cd(II) by a biochar derived from salt-sealing pyrolysis coupled with NaOH treatment. <i>Applied Surface Science</i> , 2020, 511, 145619.	3.1	42
566	Production of bio-oil from coir pith via pyrolysis: kinetics, thermodynamics, and optimization using response surface methodology. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 2881-2898.	2.9	17
567	Advances in nanomaterials induced biohydrogen production using waste biomass. <i>Bioresource Technology</i> , 2020, 307, 123094.	4.8	99
568	Pyrolytic conversion of biowaste-derived hydrochar: Decomposition mechanism of specific components. <i>Fuel</i> , 2020, 266, 117106.	3.4	22
569	Modeling Biowaste Biorefineries: A Review. <i>Frontiers in Sustainable Food Systems</i> , 2020, 4, .	1.8	43
570	Aromatic hydrocarbons production and synergistic effect of plastics and biomass via one-pot catalytic co-hydropyrolysis on HZSM-5. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 147, 104800.	2.6	26
571	Hemicellulose pyrolysis mechanism based on functional group evolutions by two-dimensional perturbation correlation infrared spectroscopy. <i>Fuel</i> , 2020, 267, 117302.	3.4	63
572	Combustions of torrefaction-pretreated bamboo forest residues: Physicochemical properties, evolved gases, and kinetic mechanisms. <i>Bioresource Technology</i> , 2020, 304, 122960.	4.8	69
573	Hydrothermal carbonization of renewable waste biomass for solid biofuel production: A discussion on process mechanism, the influence of process parameters, environmental performance and fuel properties of hydrochar. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 123, 109761.	8.2	280
574	Cellulose Pyrolysis Mechanism Based on Functional Group Evolutions by Two-Dimensional Perturbation Correlation Infrared Spectroscopy. <i>Energy & Fuels</i> , 2020, 34, 3412-3421.	2.5	39
575	Biocoal - Quality control and assurance. <i>Biomass and Bioenergy</i> , 2020, 135, 105509.	2.9	19
576	A state-of-the-art review on thermochemical conversion of biomass for biofuel production: A TG-FTIR approach. <i>Energy Conversion and Management</i> , 2020, 209, 112634.	4.4	238
577	Study on the influence of small molecular gases on toluene reforming in molten salt. <i>Renewable Energy</i> , 2020, 153, 832-839.	4.3	4
578	Effect of highly selective oxypropylation of phenolic hydroxyl groups on subsequent lignin pyrolysis: Toward the lignin valorization. <i>Energy Conversion and Management</i> , 2020, 207, 112551.	4.4	26

#	ARTICLE	IF	CITATIONS
579	Synergistic effects of catalytic co-pyrolysis of macroalgae with waste plastics. <i>Chemical Engineering Research and Design</i> , 2020, 137, 34-48.	2.7	146
580	Valorization of biomass waste to engineered activated biochar by microwave pyrolysis: Progress, challenges, and future directions. <i>Chemical Engineering Journal</i> , 2020, 389, 124401.	6.6	484
581	Effects of temperature and atmosphere on the formation of oligomers during the pyrolysis of lignin. <i>Fuel</i> , 2020, 268, 117328.	3.4	12
582	Lignocellulose biomass pyrolysis for bio-oil production: A review of biomass pre-treatment methods for production of drop-in fuels. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 123, 109763.	8.2	317
583	Valorization of Vegetable Waste via Pyrolysis: Thermal Behavior, Volatiles Release, and Products Analysis from Its Extractives. <i>Energy & Fuels</i> , 2020, 34, 1896-1907.	2.5	8
584	Apricot kernel shells pyrolysis controlled by non-isothermal simultaneous thermal analysis (STA). <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 142, 565-579.	2.0	19
585	Understanding the Impact of Lignocellulosic Biomass Variability on the Size Reduction Process: A Review. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 2327-2343.	3.2	60
586	Pyrolysis behavior of xylan-based hemicellulose in a fixed bed reactor. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 146, 104772.	2.6	27
587	High dispersed Ru/SiO ₂ -ZrO ₂ catalyst prepared by polyol reduction method and its catalytic applications in the hydrodeoxygenation of phenolic compounds and pyrolysis lignin-oil. <i>Fuel</i> , 2020, 265, 116962.	3.4	46
588	A review on hydrothermal carbonization of biomass and plastic wastes to energy products. <i>Biomass and Bioenergy</i> , 2020, 134, 105479.	2.9	231
589	Pyrolysis Simulation of Thermally Thick Biomass Particles Based on a Multistep Kinetic Scheme. <i>Energy & Fuels</i> , 2020, 34, 1940-1957.	2.5	13
590	Biomass-derived porous graphitic carbon materials for energy and environmental applications. <i>Journal of Materials Chemistry A</i> , 2020, 8, 5773-5811.	5.2	234
592	Selective saccharification of microwave-assisted glycerol pretreated corncobs via fast pyrolysis and enzymatic hydrolysis. <i>Fuel</i> , 2020, 265, 116965.	3.4	16
593	A simple fractionation method and GPC analysis of organosolv extracts obtained from lignocellulosic materials. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 1807-1821.	2.9	5
594	Reformulated Red Mud: a Robust Catalyst for <i>In Situ</i> Catalytic Pyrolysis of Biomass. <i>Energy & Fuels</i> , 2020, 34, 3272-3283.	2.5	18
595	Enhanced Hydrogen Generation from Empty Fruit Bunches by Charcoal Addition into a Downdraft Gasifier. <i>Chemical Engineering and Technology</i> , 2020, 43, 762-769.	0.9	9
596	Physical adsorption of CO ₂ in biomass at atmospheric pressure and ambient temperature. <i>Environmental Chemistry Letters</i> , 2020, 18, 1423-1431.	8.3	18
597	Comparing chemical composition and lignin structure of <i>Miscanthus x giganteus</i> and <i>Miscanthus nagara</i> harvested in autumn and spring and separated into stems and leaves. <i>RSC Advances</i> , 2020, 10, 10740-10751.	1.7	23

#	ARTICLE	IF	CITATIONS
598	Production of bio-oils enriched with aroma compounds from tobacco waste fast pyrolysis in a fluidized bed reactor. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 1611-1619.	2.9	13
599	Co-pyrolysis characteristics of polysaccharides-cellulose and the co-pyrolyzed compound distributions over two kinds of zeolite catalysts. <i>International Journal of Energy Research</i> , 2020, 44, 6350-6362.	2.2	6
600	Upgrading of Bio-oil from Biomass Pyrolysis: Current Status and Future Development. , 2020, , 317-353.		8
601	Drying and Pyrolysis of Lulo Peel: Non-Isothermal Analysis of Physicochemical, Kinetics, and Master Plots. <i>Bioenergy Research</i> , 2020, 13, 927-938.	2.2	7
602	Comparison of wood pyrolysis kinetic data derived from thermogravimetric experiments by model-fitting and model-free methods. <i>Energy Conversion and Management</i> , 2020, 212, 112818.	4.4	53
603	TG-FTIR for kinetic evaluation and evolved gas analysis of cellulose with different structures. <i>Fuel</i> , 2020, 268, 117365.	3.4	40
604	Enhanced aromatic hydrocarbon production from bio-oil hydrotreating-cracking by Mo-Ga modified HZSM-5. <i>Fuel</i> , 2020, 269, 117386.	3.4	19
605	Thermal treatment of lignin, cellulose and hemicellulose in nitrogen and carbon dioxide. <i>Fuel</i> , 2020, 271, 117656.	3.4	51
606	Thermochemical conversion of agricultural wastes applying different reforming temperatures. <i>Fuel Processing Technology</i> , 2020, 203, 106402.	3.7	23
607	Effects of KCl, KOH and K ₂ CO ₃ on the pyrolysis of C ² -O type lignin-related polymers. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 147, 104809.	2.6	19
608	Optimizing the torrefaction of pigeon pea stalk (<i>cajanus cajan</i>) using response surface methodology (RSM) and characterization of solid, liquid and gaseous products. <i>Renewable Energy</i> , 2020, 155, 677-690.	4.3	33
609	Chemical Looping Gasification of Torrefied Biomass Using NiFe ₂ O ₄ as an Oxygen Carrier for Syngas Production and Tar Removal. <i>Energy & Fuels</i> , 2020, 34, 6008-6019.	2.5	28
610	Significant Promotion of Surface Oxygen Vacancies on Bimetallic CoNi Nanocatalysts for Hydrodeoxygenation of Biomass-derived Vanillin to Produce Methylcyclohexanol. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 6075-6089.	3.2	81
611	Biochar from Figue Bagasse for Remotion of Caffeine and Diclofenac from Aqueous Solution. <i>Molecules</i> , 2020, 25, 1849.	1.7	24
612	Volatiles-char interactions during biomass pyrolysis: Cleavage of C-C bond in a lignin model dimer by amino-modified graphitized carbon nanotube. <i>Bioresource Technology</i> , 2020, 307, 123192.	4.8	30
613	Occurrence characteristics of ash-forming elements in sea rice waste and their effects on particulate matter emission during combustion. <i>Fuel</i> , 2020, 273, 117769.	3.4	9
614	Upgrading of bio-oil via solar pyrolysis of the biomass pretreated with aqueous phase bio-oil washing, solar drying, and solar torrefaction. <i>Bioresource Technology</i> , 2020, 305, 123130.	4.8	51
615	Investigation on the structural characteristics of the residues from extraction and oxidation of a sawdust. <i>Fuel</i> , 2020, 273, 117091.	3.4	5

#	ARTICLE	IF	CITATIONS
616	Selective generation of aromatic hydrocarbons from hydrotreating-cracking of bio-oil light fraction with MOx modified HZSM-5 (M _A = Ag , Mo and Zn). <i>Fuel Processing Technology</i> , 2020, 204, 106424.	3.7	15
617	Golden seaweed tides from beach inundations as a valuable sustainable fuel resource: Fast pyrolysis characteristics, product distribution and pathway study on <i>Sargassum horneri</i> based on model compounds. <i>Algal Research</i> , 2020, 48, 101888.	2.4	15
618	Insights into the bioenergy potential of jackfruit wastes considering their physicochemical properties, bioenergy indicators, combustion behaviors, and emission characteristics. <i>Renewable Energy</i> , 2020, 155, 1328-1338.	4.3	45
619	The effect of the addition of SBA-15 to the slow pyrolysis of tobacco studied by heart-cutting GC/MC. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 144, 1623-1634.	2.0	3
620	Chemicals from lignocellulosic biomass: A critical comparison between biochemical, microwave and thermochemical conversion methods. <i>Critical Reviews in Environmental Science and Technology</i> , 2021, 51, 1479-1532.	6.6	50
621	Catalytic co-pyrolysis of seaweeds and cellulose using mixed ZSM-5 and MCM-41 for enhanced crude bio-oil production. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 143, 827-842.	2.0	30
622	Study on the pyrolysis behaviour of the macroalga <i>Ulva prolifera</i> . <i>Journal of Applied Phycology</i> , 2021, 33, 91-99.	1.5	5
623	Chemistry and Specialty Industrial Applications of Lignocellulosic Biomass. <i>Waste and Biomass Valorization</i> , 2021, 12, 2145-2169.	1.8	166
624	Mitigation of harmful chemical formation from pyrolysis of tobacco waste using CO ₂ . <i>Journal of Hazardous Materials</i> , 2021, 401, 123416.	6.5	10
625	Comparative (co-)pyrolytic performances and by-products of textile dyeing sludge and cattle manure: Deeper insights from Py-GC/MS, TG-FTIR, 2D-COS and PCA analyses. <i>Journal of Hazardous Materials</i> , 2021, 401, 123276.	6.5	70
626	Gas-pressurized torrefaction of biomass wastes: The optimization of pressurization condition and the pyrolysis of torrefied biomass. <i>Bioresource Technology</i> , 2021, 319, 124216.	4.8	27
627	Production, identification, and quantification of antioxidants from torrefaction and pyrolysis of grape pomace. <i>Fuel Processing Technology</i> , 2021, 211, 106602.	3.7	15
628	Manufacturing of carbon black from spent tyre pyrolysis oil – A literature review. <i>Journal of Cleaner Production</i> , 2021, 279, 123336.	4.6	64
629	A new insight into chemical reactions between biomass and alkaline additives during pyrolysis process. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 3881-3890.	2.4	21
630	Influence of Extractives Content and Lignin Quality of Eucalyptus Wood in the Mass Balance of Pyrolysis Process. <i>Bioenergy Research</i> , 2021, 14, 175-189.	2.2	9
631	Thermokinetic study of residual solid digestate from anaerobic digestion. <i>Chemical Engineering Journal</i> , 2021, 406, 127039.	6.6	42
632	Directional valorization of eucalyptus waste into value-added chemicals by a novel two-staged controllable pyrolysis process. <i>Chemical Engineering Journal</i> , 2021, 404, 127045.	6.6	35
633	Wet torrefaction of bamboo saw dust and its co-pyrolysis with plastic. <i>Fuel</i> , 2021, 285, 119188.	3.4	31

#	ARTICLE	IF	CITATIONS
634	Optimizing bioenergy and by-product outputs from durian shell pyrolysis. <i>Renewable Energy</i> , 2021, 164, 407-418.	4.3	32
635	Insight into a new phenolic-leaching pretreatment on bamboo pyrolysis: Release characteristics of pyrolytic volatiles, upgradation of three phase products, migration of elements, and energy yield. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 136, 110444.	8.2	64
636	Hydrochar from corn stalk used as bio-asphalt modifier: High-temperature performance improvement. <i>Environmental Research</i> , 2021, 193, 110157.	3.7	31
637	Characterization of biomass wastes and its possibility of agriculture utilization due to biochar production by torrefaction process. <i>Journal of Cleaner Production</i> , 2021, 280, 124302.	4.6	64
638	Charcoal productivity and quality parameters for reliable classification of Eucalyptus clones from Brazilian energy forests. <i>Renewable Energy</i> , 2021, 164, 34-45.	4.3	28
639	The effects of char and potassium on the fast pyrolysis behaviors of biomass in an infrared-heating condition. <i>Energy</i> , 2021, 214, 119065.	4.5	19
640	Catalytic pyrolysis of microcrystalline cellulose extracted from rice straw for high yield of hydrocarbon over alkali modified ZSM-5. <i>Fuel</i> , 2021, 285, 119038.	3.4	34
641	Thermodynamic analysis of hydrogen production via supercritical water gasification of coal, sewage sludge, microalga, and sawdust. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 18042-18050.	3.8	29
642	Heating temperature dependence of molecular characteristics and biological response for biomass pyrolysis volatile-derived water-dissolved organic matter. <i>Science of the Total Environment</i> , 2021, 757, 143749.	3.9	8
643	Production of Aromatic Hydrocarbons from Biomass. <i>Petroleum Chemistry</i> , 2021, 61, 15-34.	0.4	11
644	Directional depolymerization of lignin into high added-value chemical with synergistic effect of binary solvents. <i>Bioresource Technology</i> , 2021, 321, 124440.	4.8	23
645	Characterization of hazardous gases evolved from various biomass wastes during biochar production using TGA-MS. <i>International Journal of Environmental Science and Technology</i> , 2021, 18, 73-88.	1.8	1
646	Catalytic hydrotreatment of Kraft lignin into liquid fuels over porous ZnCoOx nanoplates. <i>Fuel</i> , 2021, 283, 118801.	3.4	21
647	A review on the recent advances in the production of carbon nanotubes and carbon nanofibers via microwave-assisted pyrolysis of biomass. <i>Fuel Processing Technology</i> , 2021, 214, 106686.	3.7	71
648	Mechanism study of hemicellulose pyrolysis by combining in-situ DRIFT, TGA-PIMS and theoretical calculation. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 4241-4249.	2.4	27
649	Molecular characterization and optical properties of primary emissions from a residential wood burning boiler. <i>Science of the Total Environment</i> , 2021, 754, 142143.	3.9	10
650	Study on the feasibility of using monolithic catalyst in the in-situ catalytic biomass pyrolysis for syngas production. <i>Waste Management</i> , 2021, 120, 10-15.	3.7	13
651	Improving the monocyclic aromatic hydrocarbons production from fast pyrolysis of biomass over Fe-modified ZSM-5 catalysts. <i>International Journal of Energy Research</i> , 2021, 45, 6032-6040.	2.2	6

#	ARTICLE	IF	CITATIONS
652	Overview of sustainable fuel and energy technologies. , 2021, , 3-25.		4
653	Different Facets of Lignocellulosic Biomass Including Pectin and Its Perspectives. Waste and Biomass Valorization, 2021, 12, 4805-4823.	1.8	34
654	Simulation methods of cotton pyrolysis based on ReaxFF and the influence of volatile removal ratio on volatile evolution and char formation. Chemical Engineering Journal, 2021, 405, 126633.	6.6	37
655	Advances in nanoparticles tailored lignocellulosic biochars for removal of heavy metals with special reference to cadmium (II) and chromium (VI). Environmental Sustainability, 2021, 4, 201-214.	1.4	12
656	Different acid pretreatments at room temperature boost selective saccharification of lignocellulose via fast pyrolysis. Cellulose, 2021, 28, 81-90.	2.4	12
657	Biochar industry to circular economy. Science of the Total Environment, 2021, 757, 143820.	3.9	100
658	Value-addition of wheat straw through acid treatment and pyrolysis of acid treated residues. Journal of Cleaner Production, 2021, 282, 124488.	4.6	14
659	Seaweed-derived biochar with multiple active sites as a heterogeneous catalyst for converting macroalgae into acid-free biooil containing abundant ester and sugar substances. Fuel, 2021, 285, 119164.	3.4	100
660	The influence of water-soluble inorganic matter on combustion of grape pomace and its chars produced by slow and fast pyrolysis. Fuel, 2021, 284, 118880.	3.4	10
661	The influence of lignocellulose on biomass pyrolysis product distribution and economics via steady state process simulation. Journal of Analytical and Applied Pyrolysis, 2021, 158, 104968.	2.6	20
662	Transforming biomass pyrolysis technologies to produce liquid smoke food flavouring. Journal of Cleaner Production, 2021, 294, 125368.	4.6	28
663	A novel approach for preparing in-situ nitrogen doped carbon via pyrolysis of bean pulp for supercapacitors. Energy, 2021, 216, 119227.	4.5	89
664	A robust and frugal model of biomass pyrolysis in the range 100–800°C: Inverse analysis of DAEM parameters, validation on static tests and determination of heats of reaction. Fuel, 2021, 288, 119692.	3.4	6
665	State of the Art and Perspectives in Catalytic Conversion Mechanism of Biomass to Bio-aromatics. Energy & Fuels, 2021, 35, 45-62.	2.5	33
666	An experimental investigation of furfural oxidation and the development of a comprehensive combustion model. Combustion and Flame, 2021, 226, 200-210.	2.8	16
667	Effect of different pre-treatments and addition of plastic on the properties of bio-oil obtained by pyrolysis of greenhouse crop residue. Journal of Analytical and Applied Pyrolysis, 2021, 153, 104977.	2.6	7
668	Volatile-char interactions during biomass pyrolysis: Effect of char preparation temperature. Energy, 2021, 215, 119189.	4.5	39
669	On the mechanism of xylan pyrolysis by combined experimental and computational approaches. Proceedings of the Combustion Institute, 2021, 38, 4215-4223.	2.4	24

#	ARTICLE	IF	CITATIONS
670	A review on nitrogen transformation in hydrochar during hydrothermal carbonization of biomass containing nitrogen. <i>Science of the Total Environment</i> , 2021, 756, 143679.	3.9	108
671	Hydrochar and pyrochar for sorption of pollutants in wastewater and exhaust gas: A critical review. <i>Environmental Pollution</i> , 2021, 268, 115910.	3.7	80
672	The effect of torrefaction and ZSM-5 catalyst for hydrocarbon rich bio-oil production from co-pyrolysis of cellulose and low density polyethylene via microwave-assisted heating. <i>Science of the Total Environment</i> , 2021, 754, 142174.	3.9	24
673	Urban parks and gardens green waste: A valuable resource for the production of fillers for biocomposites applications. <i>Waste Management</i> , 2021, 120, 538-548.	3.7	16
674	Evaluation of the number of first-order reactions required to accurately model biomass pyrolysis. <i>Chemical Engineering Journal</i> , 2021, 408, 127291.	6.6	7
675	Fuel-specific devolatilization parameters for detailed comparison of pulverized biomass fuels. <i>Fuel</i> , 2021, 286, 119309.	3.4	10
676	Effect of ultrasonic vibration-assisted pelleting of biomass on biochar properties. <i>Journal of Cleaner Production</i> , 2021, 279, 123900.	4.6	15
677	Study on CO_2 gasification kinetics of biomass char based on pore structure analysis: Theoretical modelling of structural parameter τ in random pore model. <i>International Journal of Energy Research</i> , 2021, 45, 4429-4442.	2.2	6
678	Progress in biomass torrefaction: Principles, applications and challenges. <i>Progress in Energy and Combustion Science</i> , 2021, 82, 100887.	15.8	429
679	Study of pyrolysis kinetic of green corn husk. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 143, 3181-3192.	2.0	14
680	Catalytic fast pyrolysis of walnut shell for alkylphenols production with nitrogen-doped activated carbon catalyst. <i>Frontiers of Environmental Science and Engineering</i> , 2021, 15, 1.	3.3	12
681	Fast Catalytic Co-pyrolysis Characteristics and Kinetics of <i>Chlorella Vulgaris</i> and Municipal Solid Waste over Hierarchical ZSM-5 Zeolite. <i>Bioenergy Research</i> , 2021, 14, 226-240.	2.2	10
682	Catalytic conversion of 5-hydroxymethylfurfural (5-HMF) over Pd-Ru/FAU zeolite catalysts. <i>Catalysis Today</i> , 2021, 360, 2-11.	2.2	13
683	Thermochemical Conversion of Biomass and Upgrading of Bio-Products to Produce Fuels and Chemicals. , 2021, , 1-47.		0
684	Heteroatoms Doped Porous Carbon Nanostructures Recovered from Agriculture Waste for Energy Conversion and Storage. <i>Topics in Mining, Metallurgy and Materials Engineering</i> , 2021, , 465-512.	1.4	0
685	Introduction to lignocellulosic materials. , 2021, , 1-34.		1
686	Pyrolysis of biomass for value-added products. , 2021, , 167-183.		3
687	Influence of Char Intermediates on Synergistic Effects During Co-Pyrolysis of Pinewood and Polycarbonate. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2021, 143, .	1.4	17

#	ARTICLE	IF	CITATIONS
688	Syngas Characteristics From Catalytic Gasification of Polystyrene and Pinewood in CO ₂ Atmosphere. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2021, 143, .	1.4	17
689	Modified or Functionalized Natural Bioadsorbents: New Perspectives as Regards the Elimination of Environmental Pollutants. <i>Environmental and Microbial Biotechnology</i> , 2021, , 195-225.	0.4	3
690	Investigation of Char Yield and Its Physicochemical Properties with Recycling of Heavy Oil from Biomass Pyrolysis. <i>Energy & Fuels</i> , 2021, 35, 2326-2334.	2.5	4
691	Polymeric carbon nitride-based photocatalysts for photoreforming of biomass derivatives. <i>Green Chemistry</i> , 2021, 23, 7435-7457.	4.6	39
692	Towards a mechanistic understanding of particle shrinkage during biomass pyrolysis via synchrotron X-ray microtomography and in-situ radiography. <i>Scientific Reports</i> , 2021, 11, 2656.	1.6	10
693	Effect of Torrefaction Pretreatment on Chemical Structure and Pyrolysis Behaviors of Cellulose. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 621, 012014.	0.2	3
694	Pyrolytic methods of converting municipal solid waste into biofuel. , 2021, , 137-156.		0
695	Catalytic valorization of lignocellulosics: from bulk biofuels to value-added chemicals. <i>Biofuels, Bioproducts and Biorefining</i> , 2021, 15, 592-608.	1.9	7
696	Isolating key reaction energetics and thermodynamic properties during hardwood model lignin pyrolysis. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 20919-20935.	1.3	6
697	Hydrogen Production by Utilizing Bio-Processing Techniques. <i>Clean Energy Production Technologies</i> , 2021, , 169-193.	0.3	1
698	Towards Understanding the Chemical Reactions Between KOH and Oxygen-Containing Groups During KOH-Catalyzed Pyrolysis of Biomass. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
699	Catalytic hydrodeoxygenation for upgrading of lignin-derived bio-oils. , 2021, , 129-145.		2
700	Investigating the evolution of pyrolysis technologies through bibliometric analysis of patents and papers. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 159, 105021.	2.6	25
701	Studies on kinetic and reaction mechanism of oil rolling sludge under a wide temperature range. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 0, , 1-13.	1.2	4
702	Wet torrefaction of empty fruit bunches (EFB) and oil palm trunks (OPT): Effects of process parameters on their physicochemical and structural properties. <i>South African Journal of Chemical Engineering</i> , 2021, 35, 126-136.	1.2	18
703	Optimization of Slow Pyrolysis of Bamboo for Biochar Production using Taguchi's L ₉ Orthogonal Array. <i>E3S Web of Conferences</i> , 2021, 287, 02004.	0.2	1
704	Catalytic pyrolysis of rice straw using ZSM-5 catalyst to produce furfural compounds. <i>AIP Conference Proceedings</i> , 2021, , .	0.3	0
705	Wood-Derived Hydrogels as a Platform for Drug-Release Systems. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 2515-2522.	3.2	123

#	ARTICLE	IF	CITATIONS
706	Fractionation Behaviors of Walnut Shell Bio-Oil Components Under Atmospheric Distillation. SSRN Electronic Journal, 0, , .	0.4	0
707	Types of lignin, properties, and structural characterization techniques. , 2021, , 105-158.		3
708	Particleboards produced with different proportions of Hevea brasiliensis: Residual wood valorization in higher value added products. Ciencia E Agrotecnologia, 0, 45, .	1.5	5
709	Thermal conversion behavior of paper mill sludge: characterization, kinetic, and thermodynamic analyses. Biomass Conversion and Biorefinery, 2023, 13, 2007-2016.	2.9	8
710	Benzofuran as deactivation precursor molecule: Improving the stability of acid zeolites in biomass pyrolysis by co-feeding propylene. Applied Catalysis A: General, 2021, 611, 117980.	2.2	6
711	Biomass pyrolysis technologies for value-added products: a state-of-the-art review. Environment, Development and Sustainability, 2021, 23, 14324-14378.	2.7	77
712	Comparative Assessment of Pretreatment Options for Biomass Pyrolysis: Linking Biomass Compositions to Resulting Pyrolysis Behaviors, Kinetics, and Product Yields. Energy & Fuels, 2021, 35, 3186-3196.	2.5	15
713	Thermal Analysis of Co-Utilization of Empty Fruit Bunch and Silantek Coal Under Inert Atmosphere Using Thermogravimetric Analyzer (TGA). Frontiers in Energy Research, 2021, 8, .	1.2	6
714	Green chemistry design in polymers derived from lignin: review and perspective. Progress in Polymer Science, 2021, 113, 101344.	11.8	103
715	Effect of potassium on the pyrolysis of biomass components: Pyrolysis behaviors, product distribution and kinetic characteristics. Waste Management, 2021, 121, 255-264.	3.7	44
716	Pyrolysis characteristics of cellulosic biomass in the presence of alkali and alkaline-earth-metal (AAEM) oxalates. Cellulose, 2021, 28, 3473-3483.	2.4	14
717	Thermogravimetric Analysis of Densified Coco Peat Briquettes. IOP Conference Series: Materials Science and Engineering, 2021, 1062, 012053.	0.3	1
718	Pyrolysis of Ligustrum vulgare waste and the effects of various operating parameters on bio-oil upgrading. Biomass Conversion and Biorefinery, 2023, 13, 3153-3163.	2.9	3
719	Recent Advances in Photocatalytic Transformation of Carbohydrates Into Valuable Platform Chemicals. Frontiers in Chemical Engineering, 2021, 3, .	1.3	12
720	Critical review of biochar applications in geoengineering infrastructure: moving beyond agricultural and environmental perspectives. Biomass Conversion and Biorefinery, 2024, 14, 5943-5971.	2.9	36
721	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
722	Integration of Biomass Torrefaction and Gasification based on Biomass Classification: A Review. Energy Technology, 2021, 9, 2001108.	1.8	10
723	Upgrading Biomass Fuels via Combination of CO ₂ -Leaching and Torrefaction. Energy & Fuels, 2021, 35, 5006-5014.	2.5	8

#	ARTICLE	IF	CITATIONS
724	Catalytic hydrothermal liquefaction of lignin for production of aromatic hydrocarbon over metal supported mesoporous catalyst. <i>Bioresource Technology</i> , 2021, 323, 124569.	4.8	43
725	Machine learning prediction of cellulose-rich materials from biomass pretreatment with ionic liquid solvents. <i>Bioresource Technology</i> , 2021, 323, 124642.	4.8	44
726	Synergetic approach for energy recovery from coastal wastes based on combination of biological and thermal treatment. <i>Environmental Technology (United Kingdom)</i> , 2022, 43, 2755-2770.	1.2	2
727	Fabrication and characterization of carbon foams using 100% Kraft lignin. <i>Materials and Design</i> , 2021, 201, 109460.	3.3	32
728	A review on catalytic pyrolysis for high-quality bio-oil production from biomass. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 2595-2614.	2.9	31
729	A thermogravimetric assessment of the tri-combustion process for coal, biomass and polyethylene. <i>Fuel</i> , 2021, 287, 119355.	3.4	37
730	Laccase-mediated delignification and detoxification of lignocellulosic biomass: removing obstacles in energy generation. <i>Environmental Science and Pollution Research</i> , 2021, 28, 58929-58944.	2.7	44
731	Demonstration and multi-perspective analysis of industrial-scale co-pyrolysis of biomass, waste agricultural film, and bituminous coal. <i>Journal of Cleaner Production</i> , 2021, 290, 125819.	4.6	20
732	Numerical modeling and experimental assessment of sustainable woody biomass torrefaction via coupled TG-FTIR. <i>Biomass and Bioenergy</i> , 2021, 146, 105981.	2.9	19
733	Greener Solution to Waste Corn Stalks and Shortage of Asphalt Resource: Hydrochar Produced by Hydrothermal Carbonization as a Novel Performance Enhancer for Asphalt Binder. <i>Materials</i> , 2021, 14, 1427.	1.3	9
734	Base activation of persulfate: an effective pretreatment method to enhance glucose production from lignocellulosic biomass. <i>Cellulose</i> , 2021, 28, 4039-4051.	2.4	6
735	Influence of lignin on wood carbonization and charcoal properties of Miombo woodland native species. <i>European Journal of Wood and Wood Products</i> , 2021, 79, 527-535.	1.3	11
736	Spent lithium-ion battery materials recycling for catalytic pyrolysis or gasification of biomass. <i>Bioresource Technology</i> , 2021, 323, 124584.	4.8	32
737	Production and characterization of the maximum liquid product obtained from co-pyrolysis of sugarcane bagasse and thermocol waste. <i>Cellulose</i> , 2021, 28, 4223-4239.	2.4	10
738	Activated carbon from <i>Nauclea diderrichii</i> agricultural waste—a promising adsorbent for ibuprofen, methylene blue and CO ₂ . <i>Advanced Powder Technology</i> , 2021, 32, 866-874.	2.0	42
739	Recent Development in Numerical Simulations and Experimental Studies of Biomass Thermochemical Conversion. <i>Energy & Fuels</i> , 2021, 35, 6940-6963.	2.5	45
740	Inherent Metal Elements in Biomass Pyrolysis: A Review. <i>Energy & Fuels</i> , 2021, 35, 5407-5478.	2.5	68
741	CFD modeling and experimental validation of biomass fast pyrolysis in a conical spouted bed reactor. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 154, 105011.	2.6	20

#	ARTICLE	IF	CITATIONS
742	Formation and Phase Selection of CaCO ₃ in the Intervention of Lignin Monomer Model Compounds. <i>Crystal Research and Technology</i> , 2021, 56, 2000187.	0.6	2
743	Hydrochar from sugarcane industry by-products: assessment of its potential use as a soil conditioner by germination and growth of maize. <i>Chemical and Biological Technologies in Agriculture</i> , 2021, 8, .	1.9	14
744	Co-gasification of high-density polyethylene and pretreated pine wood. <i>Applied Energy</i> , 2021, 285, 116472.	5.1	39
745	Valorizing municipal solid waste via integrating hydrothermal carbonization and downstream extraction for biofuel production. <i>Journal of Cleaner Production</i> , 2021, 289, 125781.	4.6	39
746	An Overview of the Antimicrobial Properties of Lignocellulosic Materials. <i>Molecules</i> , 2021, 26, 1749.	1.7	27
747	A comprehensive study on the transition metal-catalysed pyrolysis kinetics, thermodynamics and mechanisms of bamboo powder. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 5043-5057.	2.9	2
748	Catalytic fast pyrolysis of cellulose for selective production of 1-hydroxy-3,6-dioxabicyclo[3.2.1]octan-2-one using nickel-tin layered double oxides. <i>Industrial Crops and Products</i> , 2021, 162, 113269.	2.5	12
749	Removal of phenolics from aqueous pyrolysis condensate by activated biochar. <i>Canadian Journal of Chemical Engineering</i> , 2021, 99, 2368-2385.	0.9	7
750	Identifying Synergistic Effects between Biomass Components during Pyrolysis and Pointers Concerning Experiment Design. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 5603-5612.	3.2	4
751	Physico-chemical characterization and pyrolysis kinetics of <i>Eichhornia Crassipes</i> , <i>Thevetia Peruviana</i> , and <i>Saccharum Officinarum</i> . <i>Fuel</i> , 2021, 289, 119949.	3.4	22
752	Thermal conversion behaviors, kinetics, and thermodynamics of wastewater sludge via thermogravimetric analysis, and emission characteristics from a large-scale incinerator. <i>Journal of Material Cycles and Waste Management</i> , 2021, 23, 1466-1478.	1.6	5
753	Machine Learning-Based Classification of Lignocellulosic Biomass from Pyrolysis-Molecular Beam Mass Spectrometry Data. <i>International Journal of Molecular Sciences</i> , 2021, 22, 4107.	1.8	13
754	Hydrothermal liquefaction conversion of lignocelluloses with enhanced fungal pretreatment. <i>Industrial Crops and Products</i> , 2021, 162, 113268.	2.5	21
755	Investigation on microwave torrefaction: Parametric influence, TG-MS-FTIR analysis, and gasification performance. <i>Energy</i> , 2021, 220, 119794.	4.5	37
756	Selectively Producing Acetic Acid via Boric Acid-Catalyzed Fast Pyrolysis of Woody Biomass. <i>Catalysts</i> , 2021, 11, 494.	1.6	5
757	Investigation of holocellulose-lignin interactions during pyrolysis of wood meal by TGA-FTIR. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 3731-3740.	2.9	11
758	Chemical looping gasification of <i>Chlorella</i> : Parametric optimization, reaction mechanisms, and nitrogen-containing pollutants emission. <i>Fuel</i> , 2021, 289, 119987.	3.4	19
759	Reaction mechanisms and product patterns of <i>Pteris vittata</i> pyrolysis for cleaner energy. <i>Renewable Energy</i> , 2021, 167, 600-612.	4.3	16

#	ARTICLE	IF	CITATIONS
760	Biochar from slow pyrolysis of biological sludge from wastewater treatment: characteristics and effect as soil amendment. <i>Biofuels, Bioproducts and Biorefining</i> , 2021, 15, 1054-1072.	1.9	27
761	Effect of alkali and alkaline metals on gas formation behavior and kinetics during pyrolysis of pine wood. <i>Fuel</i> , 2021, 290, 120081.	3.4	33
762	Soot formation during biomass gasification: A critical review. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 139, 110710.	8.2	98
763	Improving hydrocarbons production via catalytic co-pyrolysis of torrefied-biomass with plastics and dual catalytic pyrolysis. <i>Chinese Journal of Chemical Engineering</i> , 2022, 42, 196-209.	1.7	2
764	Isoconversional kinetic analysis of overlapped pyrolysis reactions: The case of lignocellulosic biomass and blends with anthracite. <i>Journal of the Energy Institute</i> , 2021, 95, 143-153.	2.7	12
765	Efficient Transfer Hydrogenolysis of 5-Hydroxymethylfurfural to 2,5-Dimethylfuran over CoFe Bimetallic Catalysts Using Formic Acid as a Sustainable Hydrogen Donor. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 5826-5837.	1.8	16
766	Recent Modeling Approaches to Biomass Pyrolysis: A Review. <i>Energy & Fuels</i> , 2021, 35, 7406-7433.	2.5	57
767	Thermal degradation of hemicellulose and cellulose in ball-milled cedar and beech wood. <i>Journal of Wood Science</i> , 2021, 67, .	0.9	12
769	Towards enhanced understanding of synergistic effects in co-pyrolysis of pinewood and polycarbonate. <i>Applied Energy</i> , 2021, 289, 116662.	5.1	36
770	Selective preparation of 5-hydroxymethylfurfural by catalytic fast pyrolysis of cellulose over zirconium-tin mixed metal oxides. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 155, 105103.	2.6	18
771	Investigation of the relevance between thermal degradation behavior and physicochemical property of cellulose under different torrefaction severities. <i>Biomass and Bioenergy</i> , 2021, 148, 106061.	2.9	10
772	Pyrolysis technology for <i>Cortaderia selloana</i> invasive species. Prospects in the biomass energy sector. <i>Renewable Energy</i> , 2021, 169, 178-190.	4.3	7
773	Study on the oxidation thermal kinetics of the spontaneous combustion characteristics of water-immersed coal. <i>Thermochimica Acta</i> , 2021, 699, 178914.	1.2	33
774	Organic salt-assisted pyrolysis for preparation of porous carbon from cellulose, hemicellulose and lignin: New insight from structure evolution. <i>Fuel</i> , 2021, 291, 120185.	3.4	36
775	Insight into the chemically modified crop straw adsorbents for the enhanced removal of water contaminants: A review. <i>Journal of Molecular Liquids</i> , 2021, 330, 115616.	2.3	27
776	Co-pyrolysis of waste plastic and solid biomass for synergistic production of biofuels and chemicals-A review. <i>Progress in Energy and Combustion Science</i> , 2021, 84, 100899.	15.8	298
777	The chemistry of chemical recycling of solid plastic waste via pyrolysis and gasification: State-of-the-art, challenges, and future directions. <i>Progress in Energy and Combustion Science</i> , 2021, 84, 100901.	15.8	297
778	Revealing the influence of chemical compounds on the pyrolysis of lignocellulosic wastes from the Amazonian production chains. <i>International Journal of Environmental Science and Technology</i> , 2022, 19, 4491-4508.	1.8	10

#	ARTICLE	IF	CITATIONS
779	Effect of pyrolysis operating conditions on the biomass shrinkage process of leaf waste and the formation of oxygenate and non-oxygenate compound products in bio-oil using ZSM-5 and YSZ catalysts. IOP Conference Series: Earth and Environmental Science, 2021, 749, 012064.	0.2	0
780	Dynamics of hydrogen loss and structural changes in pyrolyzing biomass utilizing neutron imaging. Carbon, 2021, 176, 511-529.	5.4	5
781	Evaluation of Na-13X zeolites activity in the catalytic pyrolysis of rapeseed oil cake to produce bio-oil. Applied Catalysis A: General, 2021, 617, 118126.	2.2	11
782	Process Water Recirculation during Hydrothermal Carbonization of Waste Biomass: Current Knowledge and Challenges. Energies, 2021, 14, 2962.	1.6	31
783	A regenerable N-rich hierarchical porous carbon synthesized from waste biomass for H ₂ S removal at room temperature. Science of the Total Environment, 2021, 768, 144452.	3.9	35
784	Effect of different washing parameters on the fuel properties and elemental composition of wheat straw in water-washing pre-treatment. Part 1: Effect of washing duration and biomass size. Fuel, 2021, 292, 120206.	3.4	18
785	Production Biofuels from Palm Empty Fruit Bunch by Catalytic Pyrolysis Using Calcined Dolomite. Materials Science Forum, 0, 1029, 153-158.	0.3	0
786	Ex-situ catalytic upgrading of corncob pyrolysis vapors into furans and phenols over Pt-Re/AC: Effect of Pt/Re ratio and process parameter. Journal of Analytical and Applied Pyrolysis, 2021, 155, 105099.	2.6	4
787	Catalytic fast pyrolysis of waste mixed cloth for the production of value-added chemicals. Waste Management, 2021, 127, 141-146.	3.7	9
789	Oriented valorization of cellulose and xylan into anhydrosugars by using low-temperature pyrolysis. Fuel, 2021, 291, 120156.	3.4	19
790	Balancing the Aromatic and Ketone Content of Bio-oils as Rejuvenators to Enhance Their Efficacy in Restoring Properties of Aged Bitumen. ACS Sustainable Chemistry and Engineering, 2021, 9, 6912-6922.	3.2	23
791	An integrated study on the pyrolysis mechanism of peanut shell based on the kinetic analysis and solid/gas characterization. Bioresource Technology, 2021, 329, 124860.	4.8	33
792	Biofuel characteristic of waste clay oil pyrolysis. Journal of Analytical and Applied Pyrolysis, 2021, 156, 105117.	2.6	17
793	Kinetic model study on biomass pyrolysis and CFD application by using pseudo-Bio-CPD model. Fuel, 2021, 293, 120266.	3.4	22
794	Selective sequential fractionation of biomass for quantitatively elucidating the compositional factors affecting biomass fast pyrolysis. Journal of Analytical and Applied Pyrolysis, 2021, 156, 105106.	2.6	12
795	Catalytic waste Kraft lignin hydrodeoxygenation to liquid fuels over a hollow Ni-Fe catalyst. Applied Catalysis B: Environmental, 2021, 287, 119975.	10.8	64
796	A novel production of monocyclic aromatic hydrocarbons via one-step catalytic conversion of pine sawdust and waste plastics over Pd/trap-HZSM-5. Fuel, 2021, 293, 120503.	3.4	7
797	Synergistic interactions for saving energy and promoting the co-pyrolysis of polylactic acid and wood flour. Renewable Energy, 2021, 171, 254-265.	4.3	28

#	ARTICLE	IF	CITATIONS
798	Advances in Pretreatment of Straw Biomass for Sugar Production. <i>Frontiers in Chemistry</i> , 2021, 9, 696030.	1.8	55
799	Enhancing hydrocarbon production via ex-situ catalytic co-pyrolysis of biomass and high-density polyethylene: Study of synergistic effect and aromatics selectivity. <i>Waste Management</i> , 2021, 128, 189-199.	3.7	24
800	Poplar wood torrefaction: Kinetics, thermochemistry and implications. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 143, 110962.	8.2	24
801	Two-step thermodegradation kinetics of cellulose, hemicelluloses, and lignin under isothermal torrefaction analyzed by particle swarm optimization. <i>Energy Conversion and Management</i> , 2021, 238, 114116.	4.4	46
802	Promoting hydrocarbon production from fatty acid pyrolysis using transition metal or phosphorus modified Al-MCM-41 catalyst. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 156, 105146.	2.6	27
803	Hydrogen Generation from Wood Chip and Biochar by Combined Continuous Pyrolysis and Hydrothermal Gasification. <i>Energies</i> , 2021, 14, 3793.	1.6	9
804	A new insight into pyrolysis mechanism of three typical actual biomass: The influence of structural differences on pyrolysis process. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 156, 105184.	2.6	27
805	A comprehensive study on by-products of food processing industry pyrolysis using a thermobalance reactor coupled to GC-FID/TCD: Mass, atomic and energy balances, thermokinetic modeling, product distribution, and characterization. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 156, 105107.	2.6	3
806	Novel detection of primary and secondary volatiles from cedar pyrolysis using in-situ pyrolysis double ionization time-of-flight mass spectrometry. <i>Chemical Engineering Science</i> , 2021, 236, 116545.	1.9	15
807	A simplified kinetic model based on a universal description for solid fuels pyrolysis: Theoretical derivation, experimental validation, and application demonstration. <i>Energy</i> , 2021, 225, 120133.	4.5	12
808	Biomass fast pyrolysis in an innovative gas-solid vortex reactor: Experimental proof of concept. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 156, 105165.	2.6	20
809	Valorisation of medical waste through pyrolysis for a cleaner environment: Progress and challenges. <i>Environmental Pollution</i> , 2021, 279, 116934.	3.7	77
810	Enhancing the fuel properties of rubberwood biomass by moving bed torrefaction process for further applications. <i>Renewable Energy</i> , 2021, 170, 703-713.	4.3	46
811	Acid and Alkali Pretreatment Effects on CO ₂ -Assisted Gasification of Pinewood. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2022, 144, .	1.4	6
812	Improving the Conversion of Biomass in Catalytic Pyrolysis via Intensification of Biomass-Catalyst Contact by Co-Pressing. <i>Catalysts</i> , 2021, 11, 805.	1.6	10
813	Thermal-dissolution based carbon enrichment-treatment of biomass wastes: Mechanism study of biomass pyrolysis in a highly-dispersed medium. <i>Energy Conversion and Management</i> , 2021, 238, 114151.	4.4	5
814	Thermal degradation of açaí-seeds and potential application in thermochemical processes. <i>Revista Produção e Desenvolvimento</i> , 0, 7, .	0.2	0
815	Effect of MgCl ₂ solution pretreatment on pubescens conversion at room temperature. <i>Renewable Energy</i> , 2021, 171, 287-298.	4.3	7

#	ARTICLE	IF	CITATIONS
816	Review on Aging of Bio-Oil from Biomass Pyrolysis and Strategy to Slowing Aging. <i>Energy & Fuels</i> , 2021, 35, 11665-11692.	2.5	39
817	Influence of Torrefaction on Biomass Devolatilization. <i>ACS Omega</i> , 2021, 6, 20264-20278.	1.6	8
818	An evaluation of the reactivity of synthetic Fe-Ni oxygen carriers: CO oxidation, H ₂ O reforming, and toluene cracking. <i>Energy Conversion and Management</i> , 2021, 240, 114263.	4.4	13
819	Combustion behaviors of molded bamboo charcoal: Influence of pyrolysis temperatures. <i>Energy</i> , 2021, 226, 120253.	4.5	20
820	Thermal conversion behavior of cellulose and hemicellulose fractions isolated from tea leaf brewing waste: kinetic and thermodynamic evaluation. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 2935-2947.	2.9	7
821	Study on pressurized upgradation of pyrolysis oil for high-value liquid products. <i>Environmental Science and Pollution Research</i> , 2021, 28, 62541-62548.	2.7	3
822	Identification and Classification of Technical Lignins by means of Principle Component Analysis and k-Nearest Neighbor Algorithm. <i>Chemistry Methods</i> , 2021, 1, 354-361.	1.8	3
823	ReaxFF Molecular Dynamics Simulations of Thermal Reactivity of Various Fuels in Pyrolysis and Combustion. <i>Energy & Fuels</i> , 2021, 35, 11707-11739.	2.5	56
824	Effect of oil palm biomass cellulosic content on nanopore structure and adsorption capacity of biochar. <i>Bioresource Technology</i> , 2021, 332, 125070.	4.8	55
825	Recent developments on sewage sludge pyrolysis and its kinetics: Resources recovery, thermogravimetric platforms, and innovative prospects. <i>Computers and Chemical Engineering</i> , 2021, 150, 107325.	2.0	74
826	Temporal and spatial evolution of biochar chemical structure during biomass pellet pyrolysis from the insights of micro-Raman spectroscopy. <i>Fuel Processing Technology</i> , 2021, 218, 106839.	3.7	34
827	Production of aromatic hydrocarbons by co-cracking of bio-oil and ethanol over Ga ₂ O ₃ /HZSM-5 catalysts. <i>Chinese Journal of Chemical Engineering</i> , 2022, 46, 126-133.	1.7	4
828	Co-pyrolysis of cellulose/lignin and sawdust: Influence of secondary condensation of the volatiles on characteristics of biochar. <i>Energy</i> , 2021, 226, 120442.	4.5	62
829	Effects of Milling and UV Pretreatment on the Pyrolytic Behavior and Thermal Stability of Softwood and Hardwood. <i>Energy & Fuels</i> , 2021, 35, 11353-11365.	2.5	9
830	Influence of air oxidative and non-oxidative torrefaction on the chemical properties of corn stalk. <i>Bioresource Technology</i> , 2021, 332, 125120.	4.8	49
831	Effect of steam on the homogeneous conversion of tar contained from the co-pyrolysis of biomass and plastics. <i>Environmental Science and Pollution Research</i> , 2021, 28, 68909-68919.	2.7	5
832	Thermal and kinetic analyzing of pyrolysis and combustion of self-heating biomass particles. <i>Chemical Engineering Research and Design</i> , 2021, 151, 39-50.	2.7	47
833	Multi-distribution activation energy model on slow pyrolysis of cellulose and lignin in TGA/DSC. <i>Heliyon</i> , 2021, 7, e07669.	1.4	32

#	ARTICLE	IF	CITATIONS
834	Production and characterization of biochar produced from slow pyrolysis of pigeon pea stalk and bamboo. <i>Cleaner Engineering and Technology</i> , 2021, 3, 100101.	2.1	78
835	Thermal decomposition behavior and sulfur release characteristics for torrefied wheat straw during pyrolysis process. <i>Bioresource Technology</i> , 2021, 333, 125172.	4.8	4
836	Estimation of lignocellulosic biomass pyrolysis product yields using artificial neural networks. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 157, 105180.	2.6	28
837	Study on products characteristics from catalytic fast pyrolysis of biomass based on the effects of modified biochars. <i>Energy</i> , 2021, 229, 120818.	4.5	24
838	Experimental validation of complex mathematical model of screw reactor coupled with particle model describing pyrolysis of lignocellulosic biomass. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105543.	3.3	2
839	Extrusion and injection moulding induced degradation of date palm fibre - polypropylene composites. <i>Polymer Degradation and Stability</i> , 2021, 190, 109641.	2.7	8
840	Online Study on the Catalytic Hydrotreatment of Guaiacol in Liquid Phase by Vacuum Ultraviolet Photoionization Time-of-Flight Mass Spectrometry. <i>Energy & Fuels</i> , 2021, 35, 13863-13870.	2.5	3
841	Thermal and Kinetic Studies on Biomass Degradation via Thermogravimetric Analysis: A Combination of Model-Fitting and Model-Free Approach. <i>ACS Omega</i> , 2021, 6, 22233-22247.	1.6	39
842	Predicting the decomposition mechanism of Loktak biomass using Py-GC/MS. <i>Environmental Technology and Innovation</i> , 2021, 23, 101735.	3.0	13
843	Comparative study on the one-step and two-step pyrolysis of lignocellulosic biomass: Effects of two-step pyrolysis on improving product quality. <i>International Journal of Energy Research</i> , 0, , .	2.2	1
844	Synthesis of modified char-supported Ni-Fe catalyst with hierarchical structure for catalytic cracking of biomass tar. <i>Renewable Energy</i> , 2021, 174, 188-198.	4.3	36
845	A highly stable waste animal bone-based catalyst for selective nitriles production from biomass via catalytic fast pyrolysis in NH ₃ . <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 157, 105217.	2.6	6
846	A review on co-pyrolysis of biomass with plastics and tires: recent progress, catalyst development, and scaling up potential. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 8747-8771.	2.9	9
847	Analysis of pyrolysis behaviors of biomass extractives via non-linear stepwise heating program based on Gaussian multi-peak fitting of differential thermogravimetric curve. <i>Thermochimica Acta</i> , 2021, 702, 178976.	1.2	8
848	Using an SGB Decision Tree Approach to Estimate the Properties of CRM Made by Biomass Pretreated with Ionic Liquids. <i>International Journal of Chemical Engineering</i> , 2021, 2021, 1-9.	1.4	5
849	Co-pyrolysis of oil palm empty fruit bunch and oil palm frond with low-density polyethylene and polypropylene for bio-oil production. <i>Arabian Journal of Chemistry</i> , 2021, 14, 103282.	2.3	25
850	Sunflower biomass power plant by-products: Properties and its potential for water purification of organic pollutants. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 157, 105237.	2.6	11
851	Production and separation of acetic acid from pyrolysis oil of lignocellulosic biomass: a review. <i>Biofuels, Bioproducts and Biorefining</i> , 2021, 15, 1912-1937.	1.9	27

#	ARTICLE	IF	CITATIONS
852	High-temperature pyrolysis modeling of a thermally thick biomass particle based on an MD-derived tar cracking model. <i>Chemical Engineering Journal</i> , 2021, 417, 127923.	6.6	18
853	Selective Demethoxylation of Lignin-Derived Methoxyphenols to Phenols over Lignin-Derived-Biochar-Supported Mo ₂ C Catalysts. <i>Energy & Fuels</i> , 2021, 35, 17138-17148.	2.5	6
854	Mechanism insight into photocatalytic conversion of lignin for valuable chemicals and fuels production: A state-of-the-art review. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 147, 111217.	8.2	57
855	Research on carbonization kinetic of cellulose-based materials and its application. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 158, 105232.	2.6	4
856	Improved relationships between kinetic parameters associated with biomass pyrolysis or combustion. <i>Bioresource Technology</i> , 2021, 342, 126053.	4.8	9
857	Mathematical Simulation of Forest Fuel Pyrolysis in One-Dimensional Statement Taking into Account Soot Formation. <i>Processes</i> , 2021, 9, 1616.	1.3	4
858	Management of Lignocellulosic Waste towards Energy Recovery by Pyrolysis in the Framework of Circular Economy Strategy. <i>Energies</i> , 2021, 14, 5864.	1.6	16
859	The effect of NaOH treatment of rice husk on its catalytic fast pyrolysis under decomposed methane for the production of aromatics. <i>Catalysis Today</i> , 2021, . .	2.2	0
860	Progress in thermodynamic simulation and system optimization of pyrolysis and gasification of biomass. <i>Green Chemical Engineering</i> , 2021, 2, 266-283.	3.3	29
861	Application of a New Statistical Model for the Description of Solid Fuel Decomposition in the Analysis of <i>Artemisia apiacea</i> Pyrolysis. <i>Energies</i> , 2021, 14, 5789.	1.6	0
862	Experimental techniques to gain mechanistic insight into fast pyrolysis of lignocellulosic biomass: A state-of-the-art review. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 148, 111262.	8.2	22
863	Charcoal Briquetting: An Environmentally Friendly Destination for Waste Materials. <i>Environmental Engineering Science</i> , 2021, 38, 841-853.	0.8	2
864	Multi-parametric optimization of the catalytic pyrolysis of pig hair into bio-oil. <i>Clean Energy</i> , 2021, 5, 527-535.	1.5	5
865	Solar-Driven Glucose Isomerization into Fructose via Transient Lewis Acid-Base Active Sites. <i>ACS Catalysis</i> , 2021, 11, 12170-12178.	5.5	36
866	Infrared heated pyrolysis of corn stover: Determination of kinetic and thermodynamic parameters. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 158, 105273.	2.6	8
867	The effect of fuzzy PID temperature control on thermal behavior analysis and kinetics study of biomass microwave pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 158, 105176.	2.6	20
869	Conversion of peach endocarp and polyethylene residue by the co-pyrolysis process. <i>Environmental Science and Pollution Research</i> , 2021, , 1.	2.7	4
870	Synergistic effect of the cotton stalk and high-ash coal on gas production during co-pyrolysis/gasification. <i>Bioresource Technology</i> , 2021, 336, 125336.	4.8	29

#	ARTICLE	IF	CITATIONS
871	Application of low-cost Fe-based catalysts in the microwave-assisted pyrolysis of macroalgae and lignocellulosic biomass for the upgradation of bio-oil. <i>Fuel</i> , 2021, 300, 120944.	3.4	40
872	High-grade biofuel production from catalytic pyrolysis of waste clay oil using modified activated seaweed carbon-based catalyst. <i>Journal of Cleaner Production</i> , 2021, 313, 127928.	4.6	24
873	Production and use of biochar from lignin and lignin-rich residues (such as digestate and olive) Tj ETQq 0 0 0 rgBT /Overlock 10 Tf 50 662	2.6	30
874	Potassium demineralization of coconut fiber via combined hydrothermal treatment and washing: Effect on pyrolysis kinetics, mechanisms, and bio-oil composition. <i>Biomass and Bioenergy</i> , 2021, 152, 106194.	2.9	7
875	Biochar derived from agricultural wastes and wood residues for sustainable agricultural and environmental applications. <i>International Soil and Water Conservation Research</i> , 2022, 10, 335-341.	3.0	39
876	Investigation of pyrolysis kinetics, thermodynamics, product characteristics and reaction mechanism of rubber seed oil. <i>Energy Conversion and Management</i> , 2021, 244, 114535.	4.4	25
877	Nanobiochar and biochar based nanocomposites: Advances and applications. <i>Journal of Agriculture and Food Research</i> , 2021, 5, 100191.	1.2	39
878	Progress in application of the pyrolytic lignin from pyrolysis of biomass. <i>Chemical Engineering Journal</i> , 2021, 419, 129560.	6.6	38
879	Conversion Mechanism of Biomass to Nano Zero-Valent Iron Biochar: Iron Phase Transfer and in Situ Reduction. <i>Engineering</i> , 2023, 21, 124-134.	3.2	10
880	Recent Advances in Thermochemical Conversion of Biomass. , 0, , .		5
881	Primary interactions of biomass components during fast pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 159, 105297.	2.6	20
882	Volatile-char interactions during biomass pyrolysis: Insight into the activity of chars derived from three major components. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 159, 105320.	2.6	13
883	A review on the selection of raw materials and reactors for biomass fast pyrolysis in China. <i>Fuel Processing Technology</i> , 2021, 221, 106919.	3.7	61
884	Influence of the structure and properties of lignocellulose on the physicochemical characteristics of lignocellulose-based residues used as an environmentally friendly substrate. <i>Science of the Total Environment</i> , 2021, 790, 148089.	3.9	16
885	Microwave pyrolysis of herb residue for syngas production with in-situ tar elimination and nitrous oxides controlling. <i>Fuel Processing Technology</i> , 2021, 221, 106955.	3.7	13
886	Online investigation on catalytic co-pyrolysis of cellulose and polyethylene over magnesium oxide by advanced mass spectrometry. <i>Bioresource Technology</i> , 2021, 338, 125560.	4.8	13
887	Recycling spent ternary lithium-ion batteries for modification of dolomite used in catalytic biomass pyrolysis – A preliminary study by thermogravimetric and pyrolysis-gas chromatography/mass spectrometry analysis. <i>Bioresource Technology</i> , 2021, 337, 125476.	4.8	21
888	Fast pyrolysis of holocellulose for the preparation of long-chain ether fuel precursors: Effect of holocellulose types. <i>Bioresource Technology</i> , 2021, 338, 125519.	4.8	12

#	ARTICLE	IF	CITATIONS
889	Comparative studies on thermochemical behavior and kinetics of lignocellulosic biomass residues using TG-FTIR and Py-GC/MS. <i>Science of the Total Environment</i> , 2021, 792, 148392.	3.9	45
890	Dielectric materials for enhancement of the sensitivity of electron paramagnetic resonance spectroscopy. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2021, 272, 115303.	1.7	2
891	Sugarcane bagasse pyrolysis: A review of operating conditions and products properties. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 149, 111394.	8.2	56
892	Effects of different pretreatment methods on biochar properties from pyrolysis of corn stover. <i>Journal of the Energy Institute</i> , 2021, 98, 294-302.	2.7	16
893	Hydrothermal conversion of different lignocellulosic biomass feedstocks – Effect of the process conditions on hydrochar structures. <i>Fuel</i> , 2021, 302, 121166.	3.4	50
894	Insight into master plots method for kinetic analysis of lignocellulosic biomass pyrolysis. <i>Energy</i> , 2021, 233, 121194.	4.5	41
895	Co-pyrolysis of wood and plastic: Evaluation of synergistic effects and kinetic data by evolved gas analysis-mass spectrometry (EGA-MS). <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 159, 105308.	2.6	8
896	Towards producing high-quality lignin-based carbon fibers: A review of crucial factors affecting lignin properties and conversion techniques. <i>International Journal of Biological Macromolecules</i> , 2021, 189, 768-784.	3.6	52
897	Thermochemical conversion of agroforestry biomass and solid waste using decentralized and mobile systems for renewable energy and products. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 149, 111372.	8.2	38
898	Gaseous production kinetics and solid structure analysis during isothermal conversion of biomass pellet under different atmospheres. <i>Journal of the Energy Institute</i> , 2021, 98, 53-62.	2.7	5
899	Contributions of pyrolysis, volatile reforming and char gasification to syngas production during steam gasification of raw and torrefied leftover rice. <i>Fuel</i> , 2021, 304, 121486.	3.4	15
900	A reactor-scale CFD model of soot formation during high-temperature pyrolysis and gasification of biomass. <i>Fuel</i> , 2021, 303, 121240.	3.4	9
901	Nickel ferrite nanoparticles induced improved fungal cellulase production using residual algal biomass and subsequent hydrogen production following dark fermentation. <i>Fuel</i> , 2021, 304, 121391.	3.4	35
902	Pyrolytic kinetics, products and reaction mechanisms of invasive plant and high-density polyethylene: TG, Py-GC/MS and DFT analysis. <i>Fuel</i> , 2021, 303, 121231.	3.4	8
903	Regulation of the elemental distribution in biomass by the torrefaction pretreatment using different atmospheres and its influence on the subsequent pyrolysis behaviors. <i>Fuel Processing Technology</i> , 2021, 222, 106983.	3.7	37
904	A review on lignocellulosic biomass waste into biochar-derived catalyst: Current conversion techniques, sustainable applications and challenges. <i>Biomass and Bioenergy</i> , 2021, 154, 106245.	2.9	37
905	A molecular investigation on lignin thermochemical conversion and carbonaceous organics deposition induced catalyst deactivation. <i>Applied Energy</i> , 2021, 302, 117557.	5.1	22
906	Current advances of functional phytochemicals in Nicotiana plant and related potential value of tobacco processing waste: A review. <i>Biomedicine and Pharmacotherapy</i> , 2021, 143, 112191.	2.5	24

#	ARTICLE	IF	CITATIONS
907	Effect of the combined pretreatment of leaching and torrefaction on the production of bio-aromatics from rice straw via the shape selective catalytic fast pyrolysis. <i>Energy Reports</i> , 2021, 7, 732-739.	2.5	36
908	Structures and pyrolytic characteristics of organosolv lignins from typical softwood, hardwood and herbaceous biomass. <i>Industrial Crops and Products</i> , 2021, 171, 113912.	2.5	35
909	From laboratory scale to pilot plant: Evaluation of the catalytic co-pyrolysis of grape seeds and polystyrene wastes with CaO. <i>Catalysis Today</i> , 2021, 379, 87-95.	2.2	22
910	A novel approach for preparing nitrogen-doped porous nanocomposites for supercapacitors. <i>Fuel</i> , 2021, 304, 121449.	3.4	17
911	Quantifying the sources of synergistic effects in co-pyrolysis of pinewood and polystyrene. <i>Applied Energy</i> , 2021, 302, 117562.	5.1	30
912	Catalytic co-pyrolysis of wet-torrefied bamboo sawdust and plastic over the zeolite H-ZSM-5: Synergistic effects and kinetics. <i>Renewable Energy</i> , 2021, 178, 608-619.	4.3	21
913	Exploration of in-situ formed MoS _x catalyst for co-hydrodeoxygenation of sawdust and vacuum gas oil in pilot-scale plant. <i>Applied Catalysis B: Environmental</i> , 2021, 297, 120499.	10.8	5
914	In situ catalytic fast pyrolysis over CeO ₂ catalyst: Impact of biomass source, pyrolysis temperature and metal ion. <i>Renewable Energy</i> , 2021, 177, 1372-1381.	4.3	25
915	Biomass direct gasification for electricity generation and natural gas replacement in the lime kilns of the pulp and paper industry: A techno-economic analysis. <i>Energy</i> , 2021, 237, 121562.	4.5	12
916	Variation of lignocellulosic biomass structure from torrefaction: A critical review. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 152, 111698.	8.2	86
917	Valorization of carbon dioxide and waste (Derived from the site of Eutrophication) into syngas using a catalytic thermo-chemical platform. <i>Bioresource Technology</i> , 2021, 341, 125858.	4.8	1
918	Prediction of three-phase product distribution and bio-oil heating value of biomass fast pyrolysis based on machine learning. <i>Energy</i> , 2021, 236, 121401.	4.5	35
919	Influence of partial components removal on pyrolysis behavior of lignocellulosic biowaste in molten salts. <i>Renewable Energy</i> , 2021, 180, 616-625.	4.3	8
920	Gasification of woody biomass in a novel indirectly heated bubbling fluidized bed steam reformer. <i>Fuel Processing Technology</i> , 2021, 224, 107003.	3.7	22
921	Pyrolysis of furfural residue pellets: Physicochemical characteristics of pyrolytic pellets and pyrolysis kinetics. <i>Renewable Energy</i> , 2021, 179, 2136-2146.	4.3	6
922	An improved machine learning approach to estimate hemicellulose, cellulose, and lignin in biomass. <i>Carbohydrate Polymer Technologies and Applications</i> , 2021, 2, 100148.	1.6	6
923	Synthesis and application in oxygen reduction reaction of N-doping porous graphitic carbon from biomass waste. <i>Fuel Processing Technology</i> , 2021, 224, 107028.	3.7	15
924	Effect of hydrothermal treatment on biomass structure with evaluation of post-pyrolysis process for wood vinegar preparation. <i>Fuel</i> , 2021, 305, 121513.	3.4	22

#	ARTICLE	IF	CITATIONS
925	Coal gasification fine slags: Investigation of the potential as both microwave adsorbers and catalysts in microwave-induced biomass pyrolysis applications. <i>Energy</i> , 2022, 238, 121867.	4.5	24
926	Sustainable production of bio-oil and carbonaceous materials from biowaste co-pyrolysis. <i>Chemical Engineering Journal</i> , 2022, 427, 131821.	6.6	11
927	Hydrodeoxygenation of lignin-derived phenolics over facile prepared bimetallic RuCoN _x /NC. <i>Fuel</i> , 2022, 308, 121979.	3.4	21
928	Lignocellulosic biomass-based pyrolysis: A comprehensive review. <i>Chemosphere</i> , 2022, 286, 131824.	4.2	129
929	Role of temperature in the biomass steam pyrolysis in a conical spouted bed reactor. <i>Energy</i> , 2022, 238, 122053.	4.5	33
930	Influence of extraction solvents on the recovery yields and properties of bio-oils from woody biomass liquefaction in sub-critical water, ethanol or water-ethanol mixed solvent. <i>Fuel</i> , 2022, 307, 121930.	3.4	23
931	Preparation and analysis of pyroligneous liquor, charcoal and gas from lacquer wood by carbonization method based on a biorefinery process. <i>Energy</i> , 2022, 239, 121918.	4.5	2
932	A comprehensive review on lignin pyrolysis: Mechanism, modeling and the effects of inherent metals in biomass. <i>Fuel</i> , 2022, 309, 122102.	3.4	95
933	Pre-pyrolysis metal and base addition catalyzes pore development and improves organic micropollutant adsorption to pine biochar. <i>Chemosphere</i> , 2022, 286, 131949.	4.2	12
934	Selective hydrodeoxygenation of lignin-derived phenolics to cycloalkanes over highly stable NiAl ₂ O ₄ spinel-supported bifunctional catalysts. <i>Chemical Engineering Journal</i> , 2022, 429, 132181.	6.6	20
935	Photocatalytic processes for biomass conversion. <i>Catalysis Science and Technology</i> , 2021, 11, 2354-2360.	2.1	24
936	Chemical data intelligence for sustainable chemistry. <i>Chemical Society Reviews</i> , 2021, 50, 12013-12036.	18.7	21
937	Highly selective reductive catalytic fractionation at atmospheric pressure without hydrogen. <i>Green Chemistry</i> , 2021, 23, 1648-1657.	4.6	37
938	Thermal decomposition and isomerization of furfural and 2-pyrone: a theoretical kinetic study. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 2046-2054.	1.3	7
939	Enhanced antioxidant activity of aqueous phase bio-oil by hydrothermal pretreatment and its structure-activity relationship. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 153, 104992.	2.6	7
940	Comparative Study on the Pyrolysis Behaviors of Pine Cone and Pretreated Pine Cone by Using TGA-FTIR and Pyrolysis-GC/MS. <i>ACS Omega</i> , 2021, 6, 3490-3498.	1.6	17
941	Combustion in the future: The importance of chemistry. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 1-56.	2.4	66
942	Comprehensive Study on the Pyrolysis Product Characteristics of Tobacco Stems Based on a Novel Nitrogen-Enriched Pyrolysis Method. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0

#	ARTICLE	IF	CITATIONS
943	Bio-Oil and Pyrolytic Oil. <i>Green Energy and Technology</i> , 2019, , 181-219.	0.4	1
944	Process Improvements and Techno-Economic Feasibility of Hydrothermal Liquefaction and Pyrolysis of Biomass for Biocrude Oil Production. , 2020, , 221-248.		1
945	Introduction to Pyrolysis as a Thermo-Chemical Conversion Technology. <i>Biofuels and Biorefineries</i> , 2020, , 3-30.	0.5	6
946	Production of Phenols by Lignocellulosic Biomass Pyrolysis. <i>Biofuels and Biorefineries</i> , 2020, , 289-319.	0.5	5
947	Kinetic Modeling of Solid, Liquid and Gas Biofuel Formation from Biomass Pyrolysis. <i>Biofuels and Biorefineries</i> , 2020, , 31-76.	0.5	4
948	Pyrolysis Chemistry and Mechanisms: Interactions of Primary Components. <i>Biofuels and Biorefineries</i> , 2020, , 113-137.	0.5	1
949	Thermogravimetric Kinetics of Catalytic and Non-Catalytic Pyrolytic Conversion of Palm Kernel Shell with Acid-Treated Coal Bottom Ash. <i>Bioenergy Research</i> , 2020, 13, 452-462.	2.2	8
950	Pyrolysis characteristics and kinetics of human faeces, simulant faeces and wood biomass by thermogravimetryâ€“gas chromatographyâ€“mass spectrometry methods. <i>Energy Reports</i> , 2020, 6, 3230-3239.	2.5	15
951	Fast co-pyrolysis of a massive Naomaohu coal and cedar mixture using rapid infrared heating. <i>Energy Conversion and Management</i> , 2020, 205, 112442.	4.4	50
952	Pyrolysis behavior and product distributions of biomass six group components: Starch, cellulose, hemicellulose, lignin, protein and oil. <i>Energy Conversion and Management</i> , 2020, 216, 112777.	4.4	183
953	Effects of SiO ₂ /Al ₂ O ₃ ratio and Fe loading rate of Fe-modified ZSM-5 on selection of aromatics and kinetics of corn stalk catalytic pyrolysis. <i>Fuel Processing Technology</i> , 2020, 206, 106458.	3.7	31
954	Controlling Deoxygenation Pathways in Catalytic Fast Pyrolysis of Biomass and Its Components by Using Metal-Oxide Nanocomposites. <i>IScience</i> , 2020, 23, 100814.	1.9	37
955	Ex-situ catalytic upgrading of vapors from microwave-assisted pyrolysis of bamboo with chemical liquid deposition modified HZSM-5 to enhance aromatics production. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 149, 104857.	2.6	14
956	Valorization of agri-food industry wastes to prepare adsorbents for heavy metal removal from water. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 104067.	3.3	48
957	Explosion characteristics of a pyrolysis biofuel derived from rice husk. <i>Journal of Hazardous Materials</i> , 2019, 369, 324-333.	6.5	19
958	Production of renewable aromatics and heterocycles by catalytic pyrolysis of biomass resources using rhenium and tin promoted ZSM-5 zeolite catalysts. <i>Chemical Engineering Research and Design</i> , 2020, 141, 305-320.	2.7	20
959	Changes in Biochar Functional Groups and Its Reactivity after Volatileâ€“Char Interactions during Biomass Pyrolysis. <i>Energy & Fuels</i> , 2020, 34, 14291-14299.	2.5	36
960	Catalytic Pyrolysis Mechanism of Î²-O-4 Type of Lignin Dimer: The Role of H Proton. <i>Energy & Fuels</i> , 2021, 35, 575-582.	2.5	11

#	ARTICLE	IF	CITATIONS
961	Critical Role of Carbonized Cellulose in the Evolution of Highly Porous Biocarbon: Seeing the Structural and Compositional Changes of Spent Mushroom Substrate by Deconvoluted Thermogravimetric Analysis. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 22541-22548.	1.8	7
962	Photoreforming of Lignocellulosic Biomass into Hydrogen under Sunlight in the Presence of Thermally Radiative CdS/SiC Composite Photocatalyst. <i>ACS Applied Energy Materials</i> , 2021, 4, 1059-1062.	2.5	18
963	Energy Recovery From Composite Acetate Polymer-Biomass Wastes via Pyrolysis and CO ₂ -Assisted Gasification. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2021, 143, .	1.4	13
964	Acetylation of tropical hardwood species from forest plantations in Costa Rica: an FTIR spectroscopic analysis. <i>Journal of Wood Science</i> , 2020, 66, .	0.9	18
965	Comparative Review of Artificial Light Sources for Solar-Thermal Biomass Conversion Research Applications. <i>Ecological Chemistry and Engineering S</i> , 2019, 26, 443-453.	0.3	8
966	Pyrolysis kinetics and mechanical properties of poly(lactic acid)/bamboo particle biocomposites: Effect of particle size distribution. <i>Nanotechnology Reviews</i> , 2020, 9, 524-533.	2.6	23
967	Quality function deployment (QFD) reveals appropriate quality of charcoal used in barbecues. <i>Scientia Agricola</i> , 2020, 77, .	0.6	12
968	Ideal Feedstock and Fermentation Process Improvements for the Production of Lignocellulolytic Enzymes. <i>Processes</i> , 2021, 9, 38.	1.3	13
969	Selection of superior clones of <i>Corymbia</i> hybrids based on wood and charcoal properties. <i>Maderas: Ciencia Y Tecnologia</i> , 2019, , 0-0.	0.7	6
970	A comparative study of thermal decomposition kinetics of cellulose, hemicellulose, and lignin. , 0, 9, 13-18.		1
971	Synthesis, formation mechanisms and applications of biomass-derived carbonaceous materials: a critical review. <i>Journal of Materials Chemistry A</i> , 2021, 9, 24759-24802.	5.2	62
972	Hydrogen Production Technologies: From Fossil Fuels toward Renewable Sources. A Mini Review. <i>Energy & Fuels</i> , 2021, 35, 16403-16415.	2.5	286
973	Persulfate adsorption and activation by carbon structure defects provided new insights into ofloxacin degradation by biochar. <i>Science of the Total Environment</i> , 2022, 806, 150968.	3.9	36
974	Naturally dispersed ash components in bio-carbon composites: integrated ammonia nitrogen removal and specific surface area augment. <i>Biomass Conversion and Biorefinery</i> , 0, , 1.	2.9	1
975	Research of the two-step pyrolysis of lignocellulosic biomass based on the cross-coupling of components by Py-GC/MS. <i>Biomass Conversion and Biorefinery</i> , 0, , 1.	2.9	2
976	Combustion of Biomass in Fluidized Beds: A Review of Key Phenomena and Future Perspectives. <i>Energy & Fuels</i> , 2021, 35, 16303-16334.	2.5	21
977	Basic Steps to Promote Biorefinery Value Chains in Forestry in Italy. <i>Sustainability</i> , 2021, 13, 11731.	1.6	5
978	Progress of the Pyrolyzer Reactors and Advanced Technologies for Biomass Pyrolysis Processing. <i>Sustainability</i> , 2021, 13, 11061.	1.6	44

#	ARTICLE	IF	CITATIONS
979	Exhausted Grape Marc Derived Biochars: Effect of Pyrolysis Temperature on the Yield and Quality of Biochar for Soil Amendment. <i>Sustainability</i> , 2021, 13, 11187.	1.6	7
980	The Biomass Waste Pyrolysis for Biopesticide Application. , 0, , .		0
981	Preparation and Characterization of corn husk nanocellulose coating on electrospun polyamide 6. <i>AEJ - Alexandria Engineering Journal</i> , 2022, 61, 4529-4540.	3.4	10
982	Hydrothermal carbonization of garden waste by pretreatment with anaerobic digestion to improve hydrochar performance and energy recovery. <i>Science of the Total Environment</i> , 2022, 807, 151014.	3.9	8
983	State-of-the-art of the pyrolysis and co-pyrolysis of food waste: Progress and challenges. <i>Science of the Total Environment</i> , 2022, 809, 151170.	3.9	26
984	Effect of operation conditions on fuel characteristics of hydrochar via hydrothermal carbonization of agroforestry biomass. <i>Biomass Conversion and Biorefinery</i> , 0, , 1.	2.9	3
985	Pyrolysis of pig-hair in a fixed bed reactor: Physico-chemical parameters of bio-oil. <i>South African Journal of Chemical Engineering</i> , 2021, 38, 115-120.	1.2	4
986	Waste Reutilization in Polymeric Membrane Fabrication: A New Direction in Membranes for Separation. <i>Membranes</i> , 2021, 11, 782.	1.4	20
987	Catalytic and inhibitory roles of K and Ca in the pyrolysis and CO ₂ or steam gasification of <i>Erianthus</i> , and their effects on co-gasification performance. <i>Biomass and Bioenergy</i> , 2021, 154, 106257.	2.9	9
988	Hydrothermal carbonization and liquefaction for sustainable production of hydrochar and aromatics. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 152, 111722.	8.2	86
989	Recycled valorization of bio-oil distillation residue via CO ₂ -induced co-pyrolysis with biomass. <i>Journal of Cleaner Production</i> , 2021, 327, 129406.	4.6	11
990	Versatile Model Selection for Pyrolysis of Lignocellulosic-Biomass Components. , 2019, , .		2
991	KÄ°RAZ Ä±EKÄ°RDEÄžÄ° PÄ°ROLÄ°Z KÄ°NETÄ°ÄžÄ°NÄ°N MODEL Ä°Ä±ERMEYEN VE MODEL BAZLI Ä°NTEGRAL KÄ°NETÄ°K YÄ°NTEMLERİN KULLANILARAK Ä°ZOTERMAL OLMAYAN TERMOGRAVÄ°METRÄ°K ANALÄ°Z VERÄ°LERÄ° Ä°ZERÄ°NDEN Ä°NCELENMESİ°. <i>Ömer Halisdemir Ä°niversitesi MÄ±hendislik Bilimleri Dergisi</i> , 0, , 1001-1016.		
992	Tailoring biochar for persulfate-based environmental catalysis: Impact of biomass feedstocks. <i>Journal of Hazardous Materials</i> , 2022, 424, 127663.	6.5	53
993	Evaluation of Analysis Methods for Formaldehyde, Acetaldehyde, and Furfural from Fast Pyrolysis Bio-oil. <i>Energy & Fuels</i> , 2021, 35, 18583-18591.	2.5	4
994	Milling Characteristics of Coal and Torrefied Biomass Blends in a Roller Mill. <i>ACS Omega</i> , 2021, 6, 29814-29819.	1.6	0
995	Insights about the effect of composition, branching and molecular weight on the slow pyrolysis of xylose-based polysaccharides. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 161, 105369.	2.6	11
996	Coconut fiber pyrolysis: specific heat capacity and enthalpy of reaction through thermogravimetry and differential scanning calorimetry. <i>Thermochimica Acta</i> , 2022, 707, 179087.	1.2	7

#	ARTICLE	IF	CITATIONS
997	Review on Evolved Gas Analysis Mass Spectrometry with Soft Photoionization for the Chemical Description of Petroleum, Petroleum-Derived Materials, and Alternative Feedstocks. Energy & Fuels, 2021, 35, 18308-18332.	2.5	20
998	Pyrolysis of agroforestry bio-wastes with Calcium/Magnesium oxides or carbonates " Focusing on biochar as soil conditioner. Biomass and Bioenergy, 2021, 155, 106277.	2.9	3
1000	Pyrolysis characteristics and kinetics of lignin: effect of starting lignins. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2022, 44, 8096-8108.	1.2	4
1001	Kinetic and analytical studies on pyrolysis of olive oil industry wastes. International Journal of Chemistry and Technology, 2020, 4, 162-170.	0.8	0
1002	Graphene-Supported Fe/Ni, γ - Fe_2O_3 -Mo $_2\text{C}$ Nanoparticles: Experimental and DFT Integrated Approach to Catalyst Development for Synergistic Hydrogen Production through Lignin-Rich Biomass Reforming and Reduced Shale Gas Flaring. ACS Catalysis, 2021, 11, 364-382.	5.5	9
1003	Pyrolysis kinetic parameters investigation of single and tri-component biomass: Models fitting via comparative model-free methods. Renewable Energy, 2022, 182, 494-507.	4.3	13
1004	Thermochemical behaviors, kinetics and bio-oils investigation during co-pyrolysis of biomass components and polyethylene based on simplex-lattice mixture design. Energy, 2022, 239, 122234.	4.5	12
1005	Yield prediction of "Thermal-dissolution based carbon enrichment" treatment on biomass wastes through coupled model of artificial neural network and AdaBoost. Bioresource Technology, 2022, 343, 126083.	4.8	16
1006	Recent advances of thermochemical conversion processes for biorefinery. Bioresource Technology, 2022, 343, 126109.	4.8	129
1007	Novel investigation of pyrolysis mechanisms and kinetics for functional groups in biomass matrix. Renewable and Sustainable Energy Reviews, 2022, 153, 111761.	8.2	36
1008	Pyrolysis of waste biomass: toward sustainable development. , 2022, , 1-34.		0
1009	Effects of vapor-/solid-phase interactions among cellulose, hemicellulose and lignin on the formation of heavy components in bio-oil during pyrolysis. Fuel Processing Technology, 2022, 225, 107042.	3.7	31
1010	Sulfonated carbon: synthesis, properties and production of biodiesel. Chemical Engineering and Processing: Process Intensification, 2022, 170, 108668.	1.8	21
1011	Enhancement of the production of chemicals and liquid fuels from grass biowaste via NaOH-Fenton pretreatment coupled with fast pyrolysis. Energy Conversion and Management, 2022, 251, 114954.	4.4	46
1012	Energy recovery from biomass through gasification technology. , 2022, , 107-132.		1
1013	Biomass hydrothermal conversion under CO $_2$ atmosphere: A way to improve the regulation of hydrothermal products. Science of the Total Environment, 2022, 807, 150900.	3.9	8
1014	In situ evolution of functional groups in char during cellulose pyrolysis under the catalysis of KCl and CaCl $_2$. Fuel, 2022, 309, 122227.	3.4	29
1016	Levoglucosan Production by Fast Pyrolysis of Biomass After Dilute Acid Pretreatment. Biofuels and Biorefineries, 2020, , 265-287.	0.5	0

#	ARTICLE	IF	CITATIONS
1017	Catalytic Pyrolysis of Lignocellulosic Biomass for Production of Liquid Biofuels. <i>Biofuels and Biorefineries</i> , 2020, , 163-182.	0.5	0
1018	Processes Simulation and Environmental Evaluation of Biofuel Production Via Co-Pyrolysis of Tropical Agricultural Waste. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1019	Py-GC-MS Study on Catalytic Pyrolysis of Biocrude Obtained via HTL of Fruit Pomace. <i>Energies</i> , 2021, 14, 7288.	1.6	4
1020	A Review of Recent Research on Catalytic Biomass Pyrolysis and Low-Pressure Hydrolysis. <i>Energy & Fuels</i> , 2021, 35, 18333-18369.	2.5	17
1021	Comprehensive study on the pyrolysis product characteristics of tobacco stems based on a novel nitrogen-enriched pyrolysis method. <i>Energy</i> , 2022, 242, 122535.	4.5	17
1022	Possibility Routes for Textile Recycling Technology. <i>Polymers</i> , 2021, 13, 3834.	2.0	47
1023	Comparative study on fuel characteristics and pyrolysis kinetics of corn residue-based hydrochar produced via microwave hydrothermal carbonization. <i>Chemosphere</i> , 2022, 291, 132787.	4.2	19
1024	Technology to convert biomass to biooil. , 2022, , 25-40.		3
1025	Hydrothermal Carbonization as Sustainable Process for the Complete Upgrading of Orange Peel Waste into Value-Added Chemicals and Bio-Carbon Materials. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 10983.	1.3	20
1026	Investigations on the pyrolysis of microalgal-bacterial granular sludge: Products, kinetics, and potential mechanisms. <i>Bioresource Technology</i> , 2022, 349, 126328.	4.8	26
1027	Investigation on effect of coal fly ash on properties of corn straw pyrolysis products. <i>Journal of the Energy Institute</i> , 2022, 100, 213-224.	2.7	5
1028	Reviewing role of biochar in controlling soil erosion and considering future aspect of production using microwave pyrolysis process for the same. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 11543-11569.	2.9	11
1029	Effects of demineralization on the composition of microalgae pyrolysis volatiles in py-GC-MS. <i>Energy Conversion and Management</i> , 2022, 251, 114979.	4.4	24
1030	Production of methyl levulinate from cellulose over cobalt disulfide: The importance of the crystal facet (111). <i>Bioresource Technology</i> , 2022, 347, 126436.	4.8	3
1031	Upgrading of biomass-derived bio-oil via catalytic hydrogenation with Rh and Pd catalysts. <i>Renewable Energy</i> , 2022, 184, 487-497.	4.3	20
1032	Investigation of non-isothermal pyrolysis kinetics of waste industrial hemp stem by three-parallel-reaction model. <i>Bioresource Technology</i> , 2022, 347, 126402.	4.8	24
1033	Co-Pyrolysis Behavior of Coal Slime and Chinese Medicine Residue by TG-FTIR-MS with Principal Component Analysis and Artificial Neural Network Model. <i>Combustion Science and Technology</i> , 2023, 195, 1840-1872.	1.2	8
1034	Enhancement of plasticizer adsorption by utilizing a rice bran-derived adsorbent. <i>Ecotoxicology and Environmental Safety</i> , 2021, 228, 112972.	2.9	5

#	ARTICLE	IF	CITATIONS
1035	Effect of hydrothermal carbonization pretreatment on the pyrolysis behavior of the digestate of agricultural waste: A view on kinetics and thermodynamics. <i>Chemical Engineering Journal</i> , 2022, 431, 133881.	6.6	16
1036	A Low-Temperature Dehydration Carbon-Fixation Strategy for Lignocellulose-Based Hierarchical Porous Carbon for Supercapacitors. <i>ChemSusChem</i> , 2022, 15, .	3.6	8
1037	Catalytic Pyrolysis of Biomass Tar Using Different Ni-Based HZMS-5: Influence of Promoters Characteristics on Hydrogen-Rich Gas Formation. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1039	Catalytic Upgrading of Cellulose Pyrolysis Volatiles over Ce Modified Hierarchical ZSM-5 Zeolite: Insight into the Effect of Acid Properties on Light Aromatics and Catalyst Stability. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 287-298.	1.8	16
1040	Volatile-char interactions during biomass pyrolysis: Reactor design toward product control. <i>Renewable Energy</i> , 2022, 185, 1-7.	4.3	23
1041	Techno-economic assessment of poly-generation pathways of bioethanol and lignin-based products. <i>Bioresource Technology Reports</i> , 2022, 17, 100919.	1.5	3
1042	Effect of pretreatment and biomass blending on bio-oil and biochar quality from two-step slow pyrolysis of rice straw. <i>Waste Management</i> , 2022, 138, 298-307.	3.7	26
1043	Dual-catalyst catalytic pyrolysis of poplar sawdust: A systematic study on first-layered catalysts. <i>Chemical Engineering Journal</i> , 2022, 431, 134251.	6.6	25
1044	Brewer's spent grains as biofuels in combustion-based energy recovery processes: Evaluation of thermo-oxidative decomposition. <i>Fuel</i> , 2022, 312, 122955.	3.4	7
1045	Understanding pyrolysis mechanisms of pinewood sawdust and sugarcane bagasse from kinetics and thermodynamics. <i>Industrial Crops and Products</i> , 2022, 177, 114378.	2.5	26
1046	Coke formation during the pyrolysis of bio-oil: Further understanding on the evolution of radicals. <i>Applications in Energy and Combustion Science</i> , 2022, 9, 100050.	0.9	3
1047	Torrefaction pretreatment facilitated solvents-resistant and stable wood-plastic composites. <i>Industrial Crops and Products</i> , 2022, 177, 114454.	2.5	9
1048	Evolution of char structure during the pyrolysis of biomass pellet: Further understanding on the effects of chars two phases. <i>Fuel</i> , 2022, 312, 122994.	3.4	10
1049	Comparative study of electric-heating torrefaction and solar-driven torrefaction of biomass: Characterization of property variation and energy usage with torrefaction severity. <i>Applications in Energy and Combustion Science</i> , 2022, 9, 100051.	0.9	7
1050	Insight into the pyrolysis kinetics of cellulose, xylan and lignin with the addition of potassium and calcium based on distributed activation energy model. <i>Energy</i> , 2022, 243, 122816.	4.5	9
1051	Role of glycosidic bond in initial cellulose pyrolysis: Investigation by machine learning simulation. <i>Applications in Energy and Combustion Science</i> , 2022, 9, 100055.	0.9	2
1052	Processes simulation and environmental evaluation of biofuel production via Co-pyrolysis of tropical agricultural waste. <i>Energy</i> , 2022, 242, 123016.	4.5	9
1053	Evolution of carbon and nitrogen during chemical looping gasification of rapeseed cake with Ca-Fe oxygen carrier. <i>Chemical Engineering Journal</i> , 2022, 431, 134232.	6.6	14

#	ARTICLE	IF	CITATIONS
1054	The modeling and products prediction for biomass oxidative pyrolysis based on PSO-ANN method: An artificial intelligence algorithm approach. <i>Fuel</i> , 2022, 312, 122966.	3.4	29
1055	Sequential pyrolysis of coal and biomass: Influence of coal-derived volatiles on property of biochar. <i>Applications in Energy and Combustion Science</i> , 2022, 9, 100052.	0.9	7
1056	Lignocellulosic biomass carbonization for biochar production and characterization of biochar reactivity. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 157, 112056.	8.2	71
1057	Influence of corn straw on distribution and migration of nitrogen and heavy metals during microwave-assisted pyrolysis of municipal sewage sludge. <i>Science of the Total Environment</i> , 2022, 815, 152303.	3.9	13
1058	Evaluation of Sulfuric Acid-Pretreated Biomass -Derived Biochar Characteristics and its Diazinon Adsorption Mechanism. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1059	Study on the Staged and Direct Fast Pyrolysis Behavior of Waste Pine Sawdust Using High Heating Rate TG-FTIR and Py-GC/MS. <i>ACS Omega</i> , 2022, 7, 4245-4256.	1.6	14
1060	Thermal Analysis and Kinetic Modeling of Pyrolysis and Oxidation of Hydrochars. <i>Energies</i> , 2022, 15, 950.	1.6	12
1061	Characterization of bio-oil and biochar obtained by pyrolysis at high temperatures from the lignocellulosic biomass of the henequen plant. <i>Journal of Material Cycles and Waste Management</i> , 2022, 24, 751-762.	1.6	9
1062	Modification of Nickel-Based Catalyst with Transition Metals to Tailor Reaction Intermediates and Property of Coke in Steam Reforming of Acetic Acid. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1063	Forest Fuel Drying, Pyrolysis and Ignition Processes during Forest Fire: A Review. <i>Processes</i> , 2022, 10, 89.	1.3	7
1064	Robust MOF-derived carbon-supported bimetallic Ni-Co catalysts for aqueous phase hydrodeoxygenation of vanillin. <i>Dalton Transactions</i> , 2022, 51, 2238-2249.	1.6	14
1065	Co-pyrolysis of coal slime and cattle manure by TG-FTIR-MS and artificial neural network modeling: Pyrolysis behavior, kinetics, gas emission characteristics. <i>Energy</i> , 2022, 247, 123203.	4.5	23
1066	Production and characterization of bio-oil from catalytic fast pyrolysis of greenhouse vegetables wastes. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 12737-12748.	2.9	1
1067	Analysis of thermal degradation of peach palm (<i>Bactris gasipaes</i> Kunth) seed using isoconversional models. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2022, 135, 367-387.	0.8	4
1068	Provisional investigation of biomass pyrolysis in CSTR using Simulink® and Aspen Plus®. <i>Biomass Conversion and Biorefinery</i> , 0, , 1.	2.9	0
1069	Increasing the bio-aromatics yield in the biomass pyrolysis oils by the integration of torrefaction deoxygenation pretreatment and catalytic fast pyrolysis with a dual catalyst system. <i>Renewable Energy</i> , 2022, 187, 561-571.	4.3	31
1070	Kinetic study on pyrolysis of mustard stalk using thermogravimetric analysis. <i>Bioresource Technology Reports</i> , 2022, 17, 100942.	1.5	20
1071	Influence of catalysts on bio-oil yield and quality: a review. <i>Environmental Science and Pollution Research</i> , 2022, 29, 30986-31001.	2.7	3

#	ARTICLE	IF	CITATIONS
1072	Energy performances of molded charcoals from bamboo and Chinese fir blends: influence of pyrolysis temperatures and residence times. <i>Industrial Crops and Products</i> , 2022, 177, 114500.	2.5	10
1073	Development of different pretreatments and related technologies for efficient biomass conversion of lignocellulose. <i>International Journal of Biological Macromolecules</i> , 2022, 202, 256-268.	3.6	67
1074	Corn cob pyrolysis: Improvement in hydrocarbon group types distribution of bio oil from co-catalysis over HZSM-5 and activated carbon. <i>Waste Management</i> , 2022, 141, 8-15.	3.7	19
1075	Microwave pyrolysis coupled with conventional pre-pyrolysis of the stalk for syngas and biochar. <i>Bioresource Technology</i> , 2022, 348, 126745.	4.8	25
1076	In-situ catalytic hydrolysis of lignin for the production of aromatic rich bio-oil. <i>Journal of the Energy Institute</i> , 2022, 101, 187-193.	2.7	12
1077	Towards understanding the chemical reactions between KOH and oxygen-containing groups during KOH-catalyzed pyrolysis of biomass. <i>Energy</i> , 2022, 245, 123286.	4.5	20
1078	A review on the stepwise processes of hydrothermal liquefaction (HTL): Recovery of nitrogen sources and upgrading of biocrude. <i>Fuel</i> , 2022, 313, 122671.	3.4	12
1079	Lignocellulosic biomass as renewable feedstock for biodegradable and recyclable plastics production: A sustainable approach. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 158, 112130.	8.2	90
1080	Recent advances in pyrolysis of cellulose to value-added chemicals. <i>Fuel Processing Technology</i> , 2022, 229, 107175.	3.7	47
1082	Improving levoglucosan and hydrocarbon production through gas-phase synergy during cellulose and polyolefin co-pyrolysis. <i>Sustainable Energy and Fuels</i> , 2022, 6, 1469-1478.	2.5	5
1083	Promoted Production of Phenolic Monomers from Lignin-First Depolymerization of Lignocellulose over Ru Supported on Biochar by N,P-Doping. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 2343-2354.	3.2	22
1084	Effect of Consecutive Application of Phosphorus-Enriched Biochar with Different Levels of P on Growth Performance of Maize for Two Successive Growing Seasons. <i>Sustainability</i> , 2022, 14, 1987.	1.6	9
1085	Experimental and kinetic study on flash pyrolysis of biomass via on-line photoionization mass spectrometry. <i>Applications in Energy and Combustion Science</i> , 2022, 9, 100057.	0.9	3
1086	Evaluation of sulfuric acid-pretreated biomass-derived biochar characteristics and its diazinon adsorption mechanism. <i>Bioresource Technology</i> , 2022, 348, 126828.	4.8	30
1087	Comparative study of catalytic and non-catalytic steam reforming of bio-oil: Importance of pyrolysis temperature and its parent biomass particle size during bio-oil production process. <i>Fuel</i> , 2022, 314, 122746.	3.4	8
1088	Beyond pretreatment: Oriented valorization of biomass into platform chemicals via torrefaction mediated by acid-base balance. <i>Fuel</i> , 2022, 317, 123411.	3.4	4
1089	Esters as a potential renewable fuel: A review of the combustion characteristics. <i>Fuel Processing Technology</i> , 2022, 229, 107185.	3.7	20
1090	Pyrolytic Methods of the Thermal Processing of Solid Municipal Waste. <i>High Temperature</i> , 2021, 59, 373-383.	0.1	2

#	ARTICLE	IF	CITATIONS
1091	"Thermal-Dissolution Based Carbon Enrichment" Treatment of Biomass: Modeling and Kinetic Study Via Combined Lumped Reaction Model and Machine Learning Algorithm. SSRN Electronic Journal, 0, , .	0.4	0
1092	Origin of Hydrogen in Aromatic and Olefin Products Derived from (Al-) Mcm-41 Catalyzed Co-Pyrolysis of Glucose and Polypropylene Via Isotopic Labeling. SSRN Electronic Journal, 0, , .	0.4	0
1093	Preparation and Formation Mechanism of Biomass-Based Graphite Carbon Catalyzed by Iron Nitrate Under a Low-Temperature Condition. SSRN Electronic Journal, 0, , .	0.4	0
1094	Controlling the Reaction Microenvironments Through an Embedding Strategy to Strengthen the Chemical Looping Reforming of Biomass Volatile Based on Decoupling Process. SSRN Electronic Journal, 0, , .	0.4	0
1095	Biofuel production with integrated pyrolysis and catalytic upgrading system. , 2022, , 147-177.		1
1096	Influence of the Porosity and Acidic Properties of Aluminosilicate Catalysts on Coke Formation During the Catalytic Pyrolysis of Lignin. SSRN Electronic Journal, 0, , .	0.4	0
1098	Sustainable biomass hydrodeoxygenation in biphasic systems. Green Chemistry, 2022, 24, 1930-1950.	4.6	24
1099	Nanocellulose Based Plastics and Composites. , 2022, , 497-503.		1
1100	Progress in biomass fast pyrolysis: An outlook of modern experimental approaches. , 2022, , 21-62.		2
1101	Oxidative Torrefaction of Some Biomass Kinds in a Fluidized Bed. Thermal Engineering (English) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.4	0
1102	Thermal behaviors and kinetics for cellulose pyrolysis using CexZr1â~x-T catalysts. Biomass Conversion and Biorefinery, 2024, 14, 4041-4053.	2.9	0
1103	The PSO-ANN modeling study of highly valuable material and energy production by gasification of solid waste: an artificial intelligence algorithm approach. Biomass Conversion and Biorefinery, 2024, 14, 2173-2184.	2.9	5
1104	Mathematical Simulation of Forest Fuel Pyrolysis and Crown Forest Fire Impact for Forest Fire Danger and Risk Assessment. Processes, 2022, 10, 483.	1.3	2
1105	Hydrogen production from autothermal CO2 gasification of cellulose in a fixed-bed reactor: Influence of thermal compensation from CaO carbonation. International Journal of Hydrogen Energy, 2022, 47, 41480-41487.	3.8	6
1106	Influence of the heating rate on the thermodegradation during the mild pyrolysis of the wood. Wood Material Science and Engineering, 2023, 18, 412-421.	1.1	2
1107	Study on Selective Preparation of Phenolic Products from Lignin over Ruâ€“Ni Bimetallic Catalysts Supported on Modified HY Zeolite. Industrial & Engineering Chemistry Research, 2022, 61, 3206-3217.	1.8	14
1108	Utilization of Tea Industrial Waste for Low-Grade Energy Recovery: Optimization of Liquid Oil Production and Its Characterization. Advances in Materials Science and Engineering, 2022, 2022, 1-9.	1.0	13
1109	Pyrolysis of lignocellulosic and algal biomasses in a fixedâ€“bed reactor: A comparative study on the composition and application potential of bioproducts. International Journal of Energy Research, 2022, 46, 9836-9850.	2.2	11

#	ARTICLE	IF	CITATIONS
1110	Kinetics modeling of co-pyrolytic decomposition of binary system of cellulose, xylan and lignin. Journal of the Energy Institute, 2022, 102, 278-288.	2.7	7
1111	Comparative Study on Pyrolysis Kinetics Behavior and High-Temperature Fast Pyrolysis Product Analysis of Coastal Zone and Land Biomasses. ACS Omega, 2022, 7, 10144-10155.	1.6	4
1112	Catalytic pyrolysis of date palm seeds on HZSM-5 and dolomite in a pyroprobe reactor in line with GC/MS. Biomass Conversion and Biorefinery, 2024, 14, 2799-2818.	2.9	9
1113	Biomass Waste to Produce Phenolic Compounds as Antiaging Additives for Asphalt. ACS Sustainable Chemistry and Engineering, 2022, 10, 3892-3908.	3.2	14
1114	CO-PYROLYSIS of agricultural waste and estimation of the applicability of pyrolysis in the integrated technology of biorenewable hydrogen production. International Journal of Hydrogen Energy, 2022, 47, 11787-11798.	3.8	17
1115	Computational Modeling Approaches of Hydrothermal Carbonization: A Critical Review. Energies, 2022, 15, 2209.	1.6	5
1116	Dynamic Evolution and Covariant Response Mechanism of Volatile Organic Compounds and Residual Functional Groups during the Online Pyrolysis of Coal and Biomass Fuels. Environmental Science & Technology, 2022, 56, 5409-5420.	4.6	14
1117	Lignin-based carbon fiber: A renewable and low-cost substitute towards featured fiber-shaped pseudocapacitor electrodes. Journal of Cleaner Production, 2022, 343, 131030.	4.6	14
1118	Influence of alkali and alkaline earth metals on the hydrothermal liquefaction of lignocellulosic model compounds. Renewable Energy, 2022, 188, 1038-1048.	4.3	8
1119	Experimental and theoretical studies on the conversion of biomass pyrolysis tar under the effect of steam. Biomass Conversion and Biorefinery, 2024, 14, 3917-3925.	2.9	0
1121	Environmental sustenance via melon seed peel conversion to fermentable sugars using soft computing models. Cleaner Engineering and Technology, 2022, 7, 100452.	2.1	2
1122	A Comprehensive Review of Feedstocks as Sustainable Substrates for Next-Generation Biofuels. Bioenergy Research, 2023, 16, 105-122.	2.2	11
1123	Selective Hydrogenation of 5-Hydroxymethylfurfural to 1,5-Hexanedione by Biochar-Supported Ru Catalysts. ChemSusChem, 2022, 15, .	3.6	7
1124	Zeolite-based cracking catalysts for bio-oil upgrading: A critical review. , 2022, 1, 167-183.		4
1125	Parametric study of oil extraction from African Star Apple (Chrysophyllum albidum) Seeds.. , 2022, , 100018.		2
1126	Hydrogen-Rich Syngas and Biochar Production by Non-Catalytic Valorization of Date Palm Seeds. Energies, 2022, 15, 2727.	1.6	21
1127	Understanding pyrolysis mechanisms of corn and cotton stalks via kinetics and thermodynamics. Journal of Analytical and Applied Pyrolysis, 2022, 164, 105521.	2.6	22
1128	Kinetic Study on The Slow Pyrolysis of Isolated Cellulose and Lignin from Teak Sawdust. Thermochimica Acta, 2022, 711, 179202.	1.2	10

#	ARTICLE	IF	CITATIONS
1129	Catalytic fast pyrolysis of soybean hulls: Focus on the products. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 163, 105492.	2.6	6
1130	Review on the catalytic effects of alkali and alkaline earth metals (AAEMs) including sodium, potassium, calcium and magnesium on the pyrolysis of lignocellulosic biomass and on the co-pyrolysis of coal with biomass. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 163, 105479.	2.6	95
1131	Catalytic pyrolysis of lignocellulosic biomass for bio-oil production: A review. <i>Chemosphere</i> , 2022, 297, 134181.	4.2	107
1132	Mechanism of synergistic effects and kinetic analysis in bamboo-LDPE waste ex-situ catalytic co-pyrolysis for enhanced aromatic hydrocarbon production via CeZrAl and HZSM-5 dual catalyst. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107479.	3.3	17
1133	Gasification characteristics of a simulated waste under separate and mixed atmospheres of steam and CO ₂ . <i>Fuel</i> , 2022, 317, 123527.	3.4	6
1134	Challenges and opportunities in microwave-assisted catalytic pyrolysis of biomass: A review. <i>Applied Energy</i> , 2022, 315, 118970.	5.1	62
1135	Porous coal char-based catalyst from coal gangue and lignite with high metal contents in the catalytic cracking of biomass tar. <i>Energy</i> , 2022, 249, 123640.	4.5	10
1136	Modification of nickel-based catalyst with transition metals to tailor reaction intermediates and property of coke in steam reforming of acetic acid. <i>Fuel</i> , 2022, 318, 123698.	3.4	8
1137	Co-pyrolysis of light bio-oil leached bamboo and heavy bio-oil: Effects of mass ratio, pyrolysis temperature, and residence time on the biochar. <i>Chemical Engineering Journal</i> , 2022, 437, 135253.	6.6	46
1138	Microwave-assisted carbon-based sulphonated melon seed peel catalyst development for the optimization of neem seed oil epoxidation using response surface methodology. <i>Cleaner Materials</i> , 2022, 4, 100069.	1.9	2
1139	Study on synergistic mechanism of Co-hydrothermal liquefaction of microalgae and macroalgae. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 164, 105514.	2.6	7
1140	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.	3.7	35
1141	Two phase modelling of Geldart B particles in a novel indirectly heated bubbling fluidized bed biomass steam reformer. <i>Chemical Engineering Journal</i> , 2022, 439, 135681.	6.6	1
1142	Transformation mechanism from cork into honeycomb-like biochar with rich hierarchical pore structure during slow pyrolysis. <i>Industrial Crops and Products</i> , 2022, 181, 114827.	2.5	16
1144	Reaction characteristics and mechanisms of sorbitol fast pyrolysis. <i>Journal of Fuel Chemistry and Technology</i> , 2021, 49, 1821-1831.	0.9	5
1145	Advance on the pyrolytic transformation of cellulose. <i>Journal of Fuel Chemistry and Technology</i> , 2021, 49, 1733-1752.	0.9	13
1146	Lignin-Derived Syringol and Acetosyringone from Palm Bunch Using Heterogeneous Oxidative Depolymerization over Mixed Metal Oxide Catalysts under Microwave Heating. <i>Molecules</i> , 2021, 26, 7444.	1.7	10
1147	Potential Use of Industrial Cocoa Waste in Biofuel Production. <i>Journal of Chemistry</i> , 2021, 2021, 1-11.	0.9	6

#	ARTICLE	IF	CITATIONS
1148	Comparison of fire-produced gases from wind tunnel and small field experimental burns. <i>International Journal of Wildland Fire</i> , 2022, , .	1.0	3
1149	Synergistic effect of acid sites and a gallium-based modified meso-/microporous catalyst for the pyrolysis of biomass. <i>Renewable Energy</i> , 2022, 191, 580-590.	4.3	8
1150	Fast pyrolysis of bagasse catalyzed by mixed alkaline-earth metal oxides for the selective production of 4-vinylphenol. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 164, 105531.	2.6	10
1151	Co-pyrolytic interactions, kinetics and products of biomass pyrolysis coke and rapeseed cake: Machine learning, DAEM and 2D-COS analysis. <i>Fuel</i> , 2022, 322, 124191.	3.4	20
1154	Pyrolysis of boron-crosslinked lignin: Influence on lignin softening and product properties. <i>Bioresource Technology</i> , 2022, 355, 127218.	4.8	10
1155	Emerging technologies for value-added use of oil palm biomass. <i>Environmental Science Advances</i> , 2022, 1, 259-275.	1.0	10
1157	Catalytic Pyrolysis of Biomass with Thermal Treatment Products of Spent Lithium-Ion Batteries for the Upgrading of Bio-Oil and Syngas. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1158	Effect of Acid and Alkali Pretreatments on the Kinetic Behavior of Pine Wood During Pyrolysis. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1160	Optimizing biochar adsorption relative to activated carbon in water treatment. , 2022, , 737-773.		1
1161	Catalytic Pyrolysis of Cellulose with Biochar Modified by Ni-Co-Mn Cathode Material Recovered from Spent Lithium-Ion Battery. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1162	Biomass carbonization technologies. , 2022, , 39-92.		3
1164	Catalytic Pyrolysis Using a Nickel-Functionalized Chemically Activated Biochar Catalyst: Insight into Process Kinetics, Products, and Mechanism. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 5770-5780.	3.2	9
1165	Selective Production of Platform Chemicals from Low-Temperature Pyrolysis of Biomass Mediated by Exogenous Acidâ€™Intrinsic Base Balance. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 5895-5910.	3.2	1
1166	Py-GC/MS and pyrolysis studies of eucalyptus, mentha, and palmarosa biomass. <i>Biomass Conversion and Biorefinery</i> , 2024, 14, 5319-5330.	2.9	4
1167	Solar pyrolysis of cotton stalks: Combined effects of torrefaction pretreatment and HZSM-5 zeolite on the bio-fuels upgradation. <i>Energy Conversion and Management</i> , 2022, 261, 115640.	4.4	17
1168	Research progress in the preparation of high-quality liquid fuels and chemicals by catalytic pyrolysis of biomass: A review. <i>Energy Conversion and Management</i> , 2022, 261, 115647.	4.4	102
1169	Combined parametric modelling of biomass devolatilisation process. <i>Renewable Energy</i> , 2022, 193, 13-22.	4.3	4
1170	Automation in competitive removal of toxic metal ions by fired and non-fired beads. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107828.	3.3	0

#	ARTICLE	IF	CITATIONS
1171	Assessing the pyrolysis potential of redgram stalk: Thermo-kinetic study, empirical modelling and product characterization. Results in Engineering, 2022, 14, 100426.	2.2	6
1172	Insight into biomass pyrolysis mechanism based on cellulose, hemicellulose, and lignin: Evolution of volatiles and kinetics, elucidation of reaction pathways, and characterization of gas, biochar and bio-oil. Combustion and Flame, 2022, 242, 112142.	2.8	194
1174	Pyrolysis of cellulose with cathode materials recovered from spent binary and ternary lithium-ion batteries. Fuel, 2022, 324, 124502.	3.4	11
1175	Nanotechnology approach for enhancement in biohydrogen production- review on applications of nanocatalyst and life cycle assessment. Fuel, 2022, 323, 124351.	3.4	22
1176	Influence of the porosity and acidic properties of aluminosilicate catalysts on coke formation during the catalytic pyrolysis of lignin. Journal of Analytical and Applied Pyrolysis, 2022, 165, 105536.	2.6	12
1177	Effect of Fe impregnation on CO ₂ -assisted pyrolysis of hazelnut shell. Fuel, 2022, 324, 124514.	3.4	2
1178	Upgrading biocrudes derived from agricultural biomass into advanced biofuels: Perspective from Malaysia. Fuel, 2022, 323, 124300.	3.4	7
1179	Towards directional pyrolysis of xylan: Understanding the roles of alkali/alkaline earth metals and pyrolysis temperature. Energy, 2022, 254, 124245.	4.5	3
1180	The enrichment of sugars and phenols from fast pyrolysis of bamboo via ethanol-Fenton pretreatment. Bioresource Technology, 2022, 356, 127315.	4.8	9
1181	Comparative assessment of water and organic acid washing pretreatment for nitrogen-rich pyrolysis: Characteristics and distribution of bio-oil and biochar. Biomass and Bioenergy, 2022, 161, 106480.	2.9	13
1182	Biochar: A sustainable solution for the management of agri-wastes and environment. , 2022, , 361-379.		1
1184	Review on effect of biochar on soil strength: Towards exploring usage of biochar in geo-engineering infrastructure. Biomass Conversion and Biorefinery, 0, , .	2.9	15
1185	Evaluation of novel hydrogen integration options in bio-oils introduction to petrochemical refineries. Energy, 2022, 254, 124353.	4.5	5
1186	Novel African tulip fruit waste-derived biochar nanostructured materials for the removal of widespread pharmaceutical contaminant in wastewaters. Biomass Conversion and Biorefinery, 0, , .	2.9	2
1187	Prediction of activation energy for combustion and pyrolysis by means of machine learning. Thermal Science and Engineering Progress, 2022, 33, 101346.	1.3	9
1188	Catalytic pyrolysis of holocellulose followed by integrated aldol condensation and hydrogenation to produce aviation fuel. Energy Conversion and Management, 2022, 264, 115644.	4.4	4
1189	Heteroatoms-doped biochar derived from deciduous resource as persulfate catalysts for efficient degradation of phenol. Journal of Water Process Engineering, 2022, 48, 102866.	2.6	10
1190	9,10-dihydroanthracene assisted catalytic pyrolysis of bagasse over N-doped activated carbon to enhance 4-ethyl phenol production. Journal of Analytical and Applied Pyrolysis, 2022, 165, 105572.	2.6	4

#	ARTICLE	IF	CITATIONS
1191	Machine learning prediction of the yield and oxygen content of bio-oil via biomass characteristics and pyrolysis conditions. <i>Energy</i> , 2022, 254, 124320.	4.5	31
1192	Study on the effect of red mud and its component oxides on the composition of bio-oil derived from corn stover catalytic pyrolysis. <i>Industrial Crops and Products</i> , 2022, 184, 114973.	2.5	8
1193	Bio-Phenolic Compounds Production Through Fast Pyrolysis: Demineralizing Olive Pomace Pretreatments. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1194	The Effect of Atmospheric Media Variation on Liquid Smoke Characteristics of Torrefied Coffee Beans. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1195	Investigation into the Correlation between the Chemical Structure of Lignin and its Temperature-Dependent Pyrolytic Product Evolution. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1196	Energy absorption characteristics and kinetics of carbonaceous solid waste gasification with copper slag as heat carrier. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 20076-20086.	3.8	6
1197	Progressive deconvolution of biomass thermogram to derive lignocellulosic composition and pyrolysis kinetics for parallel reaction model. <i>Energy</i> , 2022, 254, 124446.	4.5	8
1198	Electrodeposition synthesis of free-standing metal/carbon felts electrodes for electrocatalytic hydrogenation of levulinic acid. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 22763-22774.	3.8	6
1199	Tuning the selectivity on the furan-propylene Diels-Alder condensation over acid catalysts: Role of pore topology and surface acidity. <i>Applied Catalysis A: General</i> , 2022, 641, 118683.	2.2	6
1200	Insight into the selective production of aldehydes and ketones by catalytic upgrading of biomass pyrolysis vapor over ZrO ₂ :Cellulose and xylan. <i>Biomass and Bioenergy</i> , 2022, 162, 106473.	2.9	5
1201	Thermal-dissolution based carbon enrichment treatment of biomass: Modeling and kinetic study via combined lumped reaction model and machine learning algorithm. <i>Fuel</i> , 2022, 324, 124701.	3.4	4
1202	Controlling the reaction microenvironments through an embedding strategy to strengthen the chemical looping reforming of methane based on decoupling process. <i>Chemical Engineering Journal</i> , 2022, 446, 137061.	6.6	2
1203	A meta-analysis of thermo-physical and chemical aspects in CFD modelling of pyrolysis of a single wood particle in the thermally thick regime. <i>Chemical Engineering Journal</i> , 2022, 446, 137088.	6.6	9
1205	Experimental and Theoretical Study on the Evolution of Functional Groups in Cellulose Char During Oxidative Pyrolysis. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1206	Environmental assessment of biomass thermochemical conversion routes through a life cycle perspective. , 2022, , 85-128.		1
1207	Effects of graphene nanoparticles with organic wood particles: A synergistic effect on the structural, physical, thermal, and mechanical behavior of hybrid composites. <i>Polymers for Advanced Technologies</i> , 2022, 33, 3201-3215.	1.6	8
1208	Biochar Synthesis from Mineral- and Ash-Rich Waste Biomass, Part 1: Investigation of Thermal Decomposition Mechanism during Slow Pyrolysis. <i>Materials</i> , 2022, 15, 4130.	1.3	5
1209	Valorization of heavy metal contaminated biomass: Recycling and expanding to functional materials. <i>Journal of Cleaner Production</i> , 2022, 366, 132771.	4.6	21

#	ARTICLE	IF	CITATIONS
1210	Clay-catalyzed in situ pyrolysis of cherry pits for upgraded biofuels and heterogeneous adsorbents as recoverable by-products. <i>Biomass Conversion and Biorefinery</i> , 0, , .	2.9	1
1211	Improving the Glucose to Fructose Isomerization via Epitaxial Grafting of Niobium in UiO-66 Framework. <i>ChemCatChem</i> , 2022, 14, .	1.8	3
1212	Ultrasonic-Assisted Synthesis of Nanosized Graphite Obtained from Biomass and Its Assembly in Polyaniline-Composite Material for Energy Storage. <i>Energy & Fuels</i> , 2022, 36, 7130-7139.	2.5	3
1213	A critical review on prospects of bio-refinery products from second and third generation biomasses. <i>Chemical Engineering Journal</i> , 2022, 448, 137677.	6.6	42
1214	An insight into the principles of lignocellulosic biomass-based zero-waste biorefineries: a green leap towards imperishable energy-based future. <i>Biotechnology and Genetic Engineering Reviews</i> , 2022, 38, 288-338.	2.4	4
1215	Use of residual lignocellulosic biomass for energetic uses and environmental remediation through pyrolysis. <i>Energy Storage and Saving</i> , 2022, 1, 129-135.	3.0	5
1216	Novel methodology for evaluation of cellulose pyrolysis kinetics implementing infrared spectroscopy in situ. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 166, 105589.	2.6	3
1217	Kinetics and behavior analysis of lobster shell pyrolysis by TG-FTIR and Py-GC/MS. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 165, 105580.	2.6	6
1218	Adsorption properties of seaweed-based biochar with the greenhouse gases (CO ₂ , CH ₄ , N ₂ O) through density functional theory (DFT). <i>Biomass and Bioenergy</i> , 2022, 163, 106519.	2.9	20
1219	Insight into the synergistic reaction mechanism of biomass pseudo components and low-density polyethylene for the production of light aromatics through co-catalytic fast pyrolysis over hierarchical HZSM-5. <i>Fuel</i> , 2022, 324, 124699.	3.4	25
1220	Is biochar a reliable catalyst for activating peroxydisulfate? Damage of biochar during catalytic process. <i>Chemosphere</i> , 2022, 303, 135240.	4.2	2
1221	Performance and mechanism of bamboo residues pyrolysis: Gas emissions, by-products, and reaction kinetics. <i>Science of the Total Environment</i> , 2022, 838, 156560.	3.9	21
1222	Preparation and formation mechanism of biomass-based graphite carbon catalyzed by iron nitrate under a low-temperature condition. <i>Journal of Environmental Management</i> , 2022, 318, 115555.	3.8	15
1223	Inhibition mechanism of calcium hydroxide on melting and agglomeration behaviors of lignin under torrefaction temperature range. <i>Fuel Processing Technology</i> , 2022, 235, 107370.	3.7	1
1224	Research progress on chemical looping reforming of macromolecular components of volatiles from biomass pyrolysis based on decoupling strategy. <i>Fuel Processing Technology</i> , 2022, 235, 107375.	3.7	8
1225	Synthesis of biowaste-derived carbon foam for CO ₂ capture. <i>Resources, Conservation and Recycling</i> , 2022, 185, 106453.	5.3	8
1226	Formation and emission characteristics of intermediate volatile organic compounds (IVOCs) from the combustion of biomass and their cellulose, hemicellulose, and lignin. <i>Atmospheric Environment</i> , 2022, 286, 119217.	1.9	11
1227	Effects of aspect ratio on char structure during the pyrolysis of sawdust pellet. <i>Fuel</i> , 2022, 325, 124850.	3.4	4

#	ARTICLE	IF	CITATIONS
1247	Cooperative catalytic effects between aqueous acidic ionic liquid solutions and polyoxometalate-ionic liquid in the oxidative depolymerization of alkali lignin. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 108260.	3.3	4
1248	Influence mechanism of aqueous organic components on the hydrochar formation reaction during the biomass hydrothermal carbonization wastewater recycling. <i>Fuel</i> , 2022, 326, 125033.	3.4	14
1249	Biochar-pesticides interactions: An overview and applications of wood feedstock for atrazine contamination. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 108192.	3.3	15
1250	Catalytic pyrolysis of biomass with thermal treatment products of spent lithium-ion batteries for the upgrading of bio-oil and syngas. <i>Fuel</i> , 2022, 326, 125018.	3.4	35
1251	Investigation of the catalytic performance of coal gangue char on biomass pyrolysis in a thermogravimetric analyzer and a fixed bed reactor. <i>Fuel</i> , 2022, 328, 125216.	3.4	6
1252	Hemicellulose degradation: An overlooked issue in acidic deep eutectic solvents pretreatment of lignocellulosic biomass. <i>Industrial Crops and Products</i> , 2022, 187, 115335.	2.5	48
1253	Evaluation of Queen Palm residues and kraft lignin in the production of biofuels using densification and slow pyrolysis technology. <i>Environmental Science and Pollution Research</i> , 0, , .	2.7	1
1254	Enhanced production of hydrocarbons from the catalytic pyrolysis of maize straw over hierarchical ZSM-11 zeolites. <i>Applied Catalysis B: Environmental</i> , 2022, 317, 121775.	10.8	13
1255	Kinetic Analysis and Pyrolysis Behaviour of Pine Needles by Tg-Ftir and Py-Gc/Ms. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1256	Pyrolysis of Biomass Pineapple Residue and Banana Pseudo-Stem: Kinetics, Mechanism and Valorization of Bio-Char. <i>Catalysts</i> , 2022, 12, 840.	1.6	4
1257	Identification of bio-oil chemical compounds from pyrolysis process of oil palm empty fruit bunches. <i>IOP Conference Series: Earth and Environmental Science</i> , 2022, 1063, 012001.	0.2	0
1258	Comparative study on pyrolysis kinetics of agroforestry biomass based on distributed activation energy model method. <i>Journal of Fuel Chemistry and Technology</i> , 2022, 50, 808-823.	0.9	6
1259	Steam Gasification of Torrefied/Carbonized Wheat Straw for H ₂ -Enriched Syngas Production and Tar Reduction. <i>International Journal of Environmental Research and Public Health</i> , 2022, 19, 10475.	1.2	6
1260	A state-of-the-art review of the fate of heavy metals and product properties from pyrolysis of heavy-metal-enriched biomass harvested from phytoextraction. <i>Environmental Progress and Sustainable Energy</i> , 2023, 42, .	1.3	1
1261	First-Generation Organic Reaction Intermediates in Zeolite Chemistry and Catalysis. <i>Chemical Reviews</i> , 2022, 122, 14275-14345.	23.0	43
1262	Fluidized Bed Pyrolysis of Biomass: A Model-Based Assessment of the Relevance of Heterogeneous Secondary Reactions and Char Loading. <i>Energy & Fuels</i> , 2022, 36, 9660-9671.	2.5	4
1263	Modelling fast pyrolysis of biomass in a fluidized bed reactor. <i>Canadian Journal of Chemical Engineering</i> , 2023, 101, 110-120.	0.9	3
1264	Thermochemical depolymerization of lignin: Process analysis with state-of-the-art soft ionization mass spectrometry. <i>Frontiers in Chemical Engineering</i> , 0, 4, .	1.3	1

#	ARTICLE	IF	CITATIONS
1265	Fractionation Behaviors of Walnut Shell Bio-Oil Components Under Atmospheric Distillation. <i>Bioenergy Research</i> , 0, , .	2.2	0
1266	Municipal sludge derived solid acids for levoglucosenone production via cellulose fast pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 167, 105663.	2.6	12
1267	Effects of segmented aerobic and anaerobic fermentation assisted with chemical treatment on comprehensive properties and composition of wheat straw. <i>Bioresource Technology</i> , 2022, 362, 127772.	4.8	3
1268	Emergy analysis of agricultural waste biomass for energy-oriented utilization in China: Current situation and perspectives. <i>Science of the Total Environment</i> , 2022, 849, 157798.	3.9	7
1269	Non-isothermal pyrolysis of xylan, cellulose and lignin: A hybrid simulated annealing algorithm and pattern search method to regulate distributed activation energies. <i>Industrial Crops and Products</i> , 2022, 187, 115501.	2.5	7
1270	Thermal degradation of cellulose and coal gangue based on lumped reaction model and principal component analysis. <i>Combustion and Flame</i> , 2022, 245, 112290.	2.8	5
1271	Computational simulation and energy storage performance of lignin monomers as electrolytes for flow batteries. <i>Industrial Crops and Products</i> , 2022, 187, 115431.	2.5	3
1272	Numerical investigations of soot generation during wood-log combustion. <i>Applied Energy</i> , 2022, 325, 119841.	5.1	2
1273	Pyrolysis technology for plastic waste recycling: A state-of-the-art review. <i>Progress in Energy and Combustion Science</i> , 2022, 93, 101021.	15.8	100
1274	Synthesis of carbon molecular sieves from agricultural residues: Status, challenges and prospects. <i>Environmental Research</i> , 2022, 214, 114022.	3.7	2
1275	Pyrolysis of lignocellulosic biomass: Molecular-level insights with online ultrahigh-resolution mass spectrometry. <i>Fuel Processing Technology</i> , 2022, 236, 107439.	3.7	8
1276	Evaluation of biochar-derived carbocatalysts for pyrolytic conversion of sawdust: Life cycle assessment towards monophenol production. <i>Fuel</i> , 2022, 330, 125476.	3.4	35
1277	Pyrolysis-gasification of biomass using nickel modified catalysts: The effect of the catalyst regeneration on the product properties. <i>Journal of the Energy Institute</i> , 2022, 105, 16-24.	2.7	13
1278	Advances on the fast pyrolysis of biomass for the selective preparation of phenolic compounds. <i>Fuel Processing Technology</i> , 2022, 237, 107465.	3.7	40
1279	Co-hydrothermal carbonization of organic solid wastes to hydrochar as potential fuel: A review. <i>Science of the Total Environment</i> , 2022, 850, 158034.	3.9	80
1280	Advancing biomass pyrolysis by torrefaction pretreatment: Linking the productions of bio-oil and oxygenated chemicals to torrefaction severity. <i>Fuel</i> , 2022, 330, 125514.	3.4	8
1281	Experimental and theoretical study on the evolution of functional groups in cellulose char during oxidative pyrolysis. <i>Fuel</i> , 2022, 329, 125400.	3.4	4
1282	Investigation into the correlation between the chemical structure of lignin and its temperature-dependent pyrolytic product evolution. <i>Fuel</i> , 2022, 329, 125215.	3.4	11

#	ARTICLE	IF	CITATIONS
1283	Strategic priorities of sustainable energy development. , 2023, , 181-277.		0
1284	Valorization of almond shell biomass to biocarbon materials: Influence of pyrolysis temperature on their physicochemical properties and electrical conductivity. Carbon Trends, 2022, 9, 100214.	1.4	9
1285	Co-pyrolysis of beech wood and polyamide-6: Effect of HZSM-5 catalyst on the properties of pyrolysis oils. Journal of Analytical and Applied Pyrolysis, 2022, 167, 105696.	2.6	2
1286	Pyrolysis and CO ₂ gasification of biomass in high-temperature stage microscope: Morphological evolution and thermal behaviors. Combustion and Flame, 2022, 245, 112387.	2.8	12
1287	Mechanism study on arabinose pyrolysis by combining TG-FTIR-GC-MS and theoretical calculations. Combustion and Flame, 2022, 245, 112352.	2.8	7
1288	Brewer's spent grain pyrolysis kinetics and evolved gas analysis for the sustainable phenolic compounds and fatty acids recovery potential. Renewable Energy, 2022, 199, 157-168.	4.3	5
1289	Biofuel characteristics of chars produced from rapeseed, whitewood, and seaweed via thermal conversion technologies – Impacts of feedstocks and process conditions. Fuel Processing Technology, 2022, 238, 107492.	3.7	8
1290	Recent advances in mass spectrometric studies on the reaction process of biomass pyrolysis. Fuel Processing Technology, 2022, 237, 107473.	3.7	19
1291	Emission characteristics and formation pathways of carbonyl compounds from the combustion of biomass and their cellulose, hemicellulose, and lignin at different temperatures and oxygen concentrations. Atmospheric Environment, 2022, 291, 119387.	1.9	8
1292	Facile synthesis of nitrogen-doped interconnected porous carbons derived from reed and chlorella for high-performance supercapacitors. Fuel Processing Technology, 2022, 238, 107466.	3.7	22
1293	Applicability of alfalfa and goldenrod residues after supercritical CO ₂ extraction to plant micronutrient biosorption and renewable energy production. Energy, 2023, 262, 125437.	4.5	2
1294	Comprehensive effects of different inorganic elements on initial biomass char-CO ₂ gasification reactivity in micro fluidised bed reactor: Theoretical modeling and experiment analysis. Energy, 2023, 262, 125379.	4.5	4
1295	Comprehensive study on the pyrolysis process of chestnut processing waste (chestnut shells): Kinetic triplet, thermodynamic, in-situ monitoring of evolved gasses and analysis biochar. Fuel, 2023, 331, 125944.	3.4	15
1296	Switching the production of oxygenated platform chemicals during pyrolysis of sugarcane bagasse by regulating the secondary reactions. Fuel, 2023, 331, 125804.	3.4	4
1297	State-of-the-art co-pyrolysis of lignocellulosic and macroalgae biomass feedstocks for improved bio-oil production- A review. Fuel, 2023, 332, 126071.	3.4	37
1298	Synergistic effect of CoO _x and Ni-Co alloy in Ni-Co/SAPO-11 catalysts for the deoxygenation of stearic acids. Chemical Engineering Journal, 2023, 451, 138929.	6.6	12
1299	Kinetic study for thermocatalytic degradation of waste mixed cloth over antibiotic residue derived carbon-based solid acids. Fuel, 2023, 331, 125797.	3.4	6
1300	Influence of the synergistic effects and potassium on the combustion behaviors of biomass under high heating rate. Fuel, 2023, 331, 125745.	3.4	1

#	ARTICLE	IF	CITATIONS
1301	Modelling and simulation of a residual lignocellulosic biomass pyrolysis pilot plant. <i>Computer Aided Chemical Engineering</i> , 2022, , 547-552.	0.3	0
1302	Lignin to value-added chemicals and advanced materials: extraction, degradation, and functionalization. <i>Green Chemistry</i> , 2022, 24, 7705-7750.	4.6	33
1303	Experimental and Theoretical Study of the Pyrolysis of β -O-4 Type Lignin Model Compounds: The Catalytic Effects of Potassium and Calcium Additives. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1304	Wood Properties of Nine Acetylated Tropical Hardwoods from Fast-Grown Plantations in Costa Rica. <i>Wood and Fiber Science</i> , 2022, 54, 134-148.	0.2	1
1305	Experimental and theoretical study of the catalytic effects of potassium and calcium additives on the pyrolysis of β -O-4 type lignin model compounds. <i>Fuel</i> , 2023, 332, 125976.	3.4	2
1306	Characteristics of biochar derived from the co-pyrolysis of corn stalk and mulch film waste. <i>Energy</i> , 2023, 262, 125554.	4.5	7
1307	Thermochemical Recycling of Solid Biomass Materials for Achieving Sustainable Goal: A Complete Characterization Study on Liquid Yield Products. <i>Journal of Chemistry</i> , 2022, 2022, 1-9.	0.9	1
1308	Pyrolysis kinetics and thermodynamics of pomegranate peel using TG/DTG analysis. <i>Biomass Conversion and Biorefinery</i> , 0, , .	2.9	2
1309	Analysis of Pyrolysis Kinetic Parameters Based on Various Mathematical Models for More than Twenty Different Biomasses: A Review. <i>Energies</i> , 2022, 15, 6524.	1.6	5
1310	Selective Production of Light Aromatics from Hydrocracking of Pyrolytic Lignin over Ni/HZSM-5. <i>Energy & Fuels</i> , 2022, 36, 10975-10989.	2.5	2
1311	Construction and application of biochar-based composite phase change materials. <i>Chemical Engineering Journal</i> , 2023, 453, 139441.	6.6	29
1312	Thermal analysis and determination of kinetics and thermodynamics for pyrolysis of soybean de-oiled cake using thermogravimetric analysis. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 14381-14392.	2.0	4
1313	Co-pyrolysis Characteristics and Synergistic Interaction of Waste Polyethylene Terephthalate and Woody Biomass towards Bio-Oil Production. <i>Journal of Chemistry</i> , 2022, 2022, 1-9.	0.9	5
1314	Heterogeneous Dynamic Behavior and Synergetic Evolution Mechanism of Internal Components and Released Gases during the Pyrolysis of Aquatic Biomass. <i>Environmental Science & Technology</i> , 2022, 56, 13595-13606.	4.6	7
1315	Waste Biomass Selective and Sustainable Photooxidation to High-Added-Value Products: A Review. <i>Catalysts</i> , 2022, 12, 1091.	1.6	7
1316	Plasma-Electrified up-Carbonization for low-Carbon clean energy. , 2023, 5, .		10
1317	Material and Environmental Properties of Natural Polymers and Their Composites for Packaging Applications—A Review. <i>Polymers</i> , 2022, 14, 4033.	2.0	11
1318	Value-Added Products from Catalytic Pyrolysis of Lignocellulosic Biomass and Waste Plastics over Biochar-Based Catalyst: A State-of-the-Art Review. <i>Catalysts</i> , 2022, 12, 1067.	1.6	13

#	ARTICLE	IF	CITATIONS
1319	A Tool for the Assessment of Forest Biomass as a Source of Rural Sustainable Energy in Natural Areas in Honduras. <i>Sustainability</i> , 2022, 14, 11114.	1.6	0
1320	Valuable Biofuel Production via Pyrolysis Process of Olive Pomace over Alkali and Transition Metal Oxides Catalysts Supported on Activated Biochar. <i>ChemistrySelect</i> , 2022, 7, .	0.7	11
1321	Comparative analysis of seed biomass from Amazonian fruits for activated carbon production. <i>Biomass Conversion and Biorefinery</i> , 0, , .	2.9	2
1322	A comprehensive comparative study on the energy application of chars produced from different biomass feedstocks via hydrothermal conversion, pyrolysis, and torrefaction. <i>Energy Conversion and Management</i> , 2022, 270, 116260.	4.4	25
1323	Environmental and Economic Impacts of Biodegradable Plastic Film Mulching on Rainfed Maize: Evaluations on Sustainability and Productivity. <i>ACS Agricultural Science and Technology</i> , 2022, 2, 908-918.	1.0	4
1324	Comparison of properties of biochar produced from different types of lignocellulosic biomass by slow pyrolysis at 600Å°C. <i>Applications in Energy and Combustion Science</i> , 2022, 12, 100090.	0.9	7
1325	Biomass pyrolysis: A review on recent advancements and green hydrogen production. <i>Bioresource Technology</i> , 2022, 364, 128087.	4.8	66
1326	Influence of water-washing pretreatment on ash fusibility of biomass. <i>Renewable Energy</i> , 2022, 200, 125-135.	4.3	16
1327	Selective production of aromatics from catalytic pyrolysis of biomass wastes: Effects of feedstock properties and key oxygenated intermediates on aromatics formation. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 168, 105675.	2.6	6
1328	Biomass Value€”Production of H ₂ as an Energy Carrier. <i>Lecture Notes in Energy</i> , 2022, , 723-754.	0.2	1
1329	Transformation of tobacco biomass into value-added carbohydrate, aromatics, and biochar. <i>Biomass Conversion and Biorefinery</i> , 0, , .	2.9	0
1330	Bulk Molybdenum and Tungsten Phosphides for Selective Phenol Production from Guaiacol. <i>ACS Omega</i> , 2022, 7, 40586-40595.	1.6	3
1331	From Lignin to Chemicals: An Expedition from Classical to Modern Catalytic Valorization Technologies. <i>Chemie-Ingenieur-Technik</i> , 2022, 94, 1611-1627.	0.4	4
1332	Catalytic Oxidative Depolymerization of Sodium Lignosulfonate into Valuable Esters over Cu _x O/mâ€Sep Catalyst in H ₂ O Solvent Systems. <i>ChemistrySelect</i> , 2022, 7, .	0.7	3
1333	Pyrolysis of forestry biomass and its effect over bed arrangements and thickness for the production of fuels. <i>Bioresource Technology Reports</i> , 2022, 20, 101247.	1.5	2
1334	Synergistic Effect of Calcium Oxide/LaNi _{0.5} Fe _{0.5} O ₃ Oxygen Carriers on Syngas Production from Algae Chemical Looping Gasification. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 16662-16672.	1.8	4
1335	Quercetin-grafted modification to improve wood decay resistance. <i>Holzforschung</i> , 2022, .	0.9	0
1336	Cellulose Fast Pyrolysis Activated by Intramolecular Hydrogen Bonds. <i>Journal of Physical Chemistry A</i> , 2022, 126, 7806-7819.	1.1	3

#	ARTICLE	IF	CITATIONS
1337	Kraft Lignin: From Pulping Waste to Bio-Based Dielectric Polymer for Organic Field-Effect Transistors. <i>Advanced Sustainable Systems</i> , 2022, 6, .	2.7	5
1338	Fast and Selective Production of Aromatics via Efficient Lignin Depolymerization: Critical Factors and Mechanism Studies. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 15273-15283.	3.2	5
1339	Numerical investigation on soot evolution during xylan pyrolysis: effect of particle interaction, soot radiation, and thermophoresis. <i>Biomass Conversion and Biorefinery</i> , 0, , .	2.9	1
1340	Interconnected pyrolysis and gasification of typical biomass in a novel dual fluidized bed. <i>Energy Conversion and Management</i> , 2022, 271, 116323.	4.4	13
1341	Fast co-pyrolysis of lignin with spent bleaching clay into monocyclic aromatic hydrocarbons over a novel low-cost composite catalyst. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 168, 105748.	2.6	2
1342	Luffa cylindrica Slow Pyrolysis and Solar Pyrolysis: Impact of Temperature and Heating Rate on Biochar Properties and Iodine Adsorption Performance. <i>Waste and Biomass Valorization</i> , 0, , .	1.8	1
1343	Recent developments on the zeolites catalyzed polyolefin plastics pyrolysis. <i>Fuel Processing Technology</i> , 2022, 238, 107531.	3.7	25
1344	Application of low-cost natural zeolite catalyst to enhance monoaromatics yield in co-pyrolysis of wheat straw and waste tire. <i>Journal of the Energy Institute</i> , 2022, 105, 367-375.	2.7	5
1345	Investigations into pyrolytic behaviour of spent citronella waste: Slow and flash pyrolysis study. <i>Bioresource Technology</i> , 2022, 366, 128202.	4.8	7
1346	Catalytic pyrolysis of guaiacol on Enteromorpha-based biochar: A combination of experiments and density functional theory. <i>Fuel Processing Technology</i> , 2023, 239, 107527.	3.7	15
1347	Torrefaction at low temperature as a promising pretreatment of lignocellulosic biomass in anaerobic digestion. <i>Energy</i> , 2023, 263, 125822.	4.5	7
1348	The co-pyrolysis interactions of isolated lignins and cellulose by experiments and theoretical calculations. <i>Energy</i> , 2023, 263, 125811.	4.5	5
1349	Interactions of cellulose- and lignin-derived radicals during pyrolysis: An in-situ Electron Paramagnetic Resonance (EPR) study. <i>Fuel Processing Technology</i> , 2023, 239, 107536.	3.7	8
1350	Effects of potassium salt on the pyrolysis products characteristics of alkali lignin from furfural residue. <i>Fuel</i> , 2023, 333, 126216.	3.4	12
1351	Evaluation of the kinetic and thermodynamic parameters in catalytic pyrolysis process of sunflower oil using Al-MCM-41 and zeolite H-ZSM-5. <i>Fuel</i> , 2023, 333, 126225.	3.4	5
1352	Production of light olefins and aromatics via catalytic co-pyrolysis of biomass and plastic. <i>Fuel</i> , 2023, 333, 126339.	3.4	30
1353	Investigation into biochar supported Fe-Mo carbides catalysts for efficient biomass gasification tar cracking. <i>Chemical Engineering Journal</i> , 2023, 454, 140072.	6.6	7
1354	Biomass Pyrolysis. , 2022, , .		0

#	ARTICLE	IF	CITATIONS
1355	Mechanistic investigation of char growth from lignin monomers during biomass utilisation. <i>Fuel Processing Technology</i> , 2023, 239, 107556.	3.7	4
1356	Comparison of hydrocracking and cracking of pyrolytic lignin over different Ni-based catalysts for light aromatics production. <i>Fuel Processing Technology</i> , 2023, 240, 107564.	3.7	6
1357	Kinetic parameters and reaction mechanism study of biomass pyrolysis by combined kinetics coupled with a heuristic optimization algorithm. <i>Fuel</i> , 2023, 334, 126622.	3.4	5
1358	Cascade upcycling polystyrene waste into ethylbenzene over Fe ₂ N@C. <i>Applied Catalysis B: Environmental</i> , 2023, 323, 122164.	10.8	12
1359	Biofuels From Bio-Waste and Biomass. <i>Advances in Environmental Engineering and Green Technologies Book Series</i> , 2022, , 75-118.	0.3	0
1360	Thermogravimetric Analysis and Kinetic Modeling of the AAEM-Catalyzed Pyrolysis of Woody Biomass. <i>Molecules</i> , 2022, 27, 7662.	1.7	9
1361	Biomass pyrolysis mechanism for carbon-based high-value products. <i>Proceedings of the Combustion Institute</i> , 2023, 39, 3157-3181.	2.4	13
1362	Thermogravimetric analysis and kinetic modeling of the co-pyrolysis of a bituminous coal and poplar wood. <i>Chinese Journal of Chemical Engineering</i> , 2023, 58, 53-68.	1.7	8
1363	Effective hydrolysis for waste plant biomass impacts sustainable fuel and reduced air pollution generation: A comprehensive review. <i>Science of the Total Environment</i> , 2023, 859, 160260.	3.9	11
1364	Possible Utilization of Distillery Waste in the Carbonization Process. <i>Materials</i> , 2022, 15, 7853.	1.3	0
1365	Microstructure and mechanical properties of high strength porous ceramics with high sewage sludge content. <i>Journal of Cleaner Production</i> , 2022, 380, 135084.	4.6	34
1366	Machine learning-based modeling approaches for estimating pyrolysis products of varied biomass and operating conditions. <i>Bioresource Technology Reports</i> , 2022, 20, 101285.	1.5	3
1367	Understanding organic N interactions with cellulose during pyrolysis to produce N-doped carbonaceous materials. <i>Journal of Analytical and Applied Pyrolysis</i> , 2023, 169, 105791.	2.6	9
1368	The Effect of Atmospheric Media Variation on Liquid Characteristics of Torrefied Coffee Beans. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, , 105799.	2.6	1
1369	Investigation on the co-pyrolysis of bamboo sawdust and low-density polyethylene via online photoionization mass spectrometry and machine learning methods. <i>Fuel Processing Technology</i> , 2023, 240, 107579.	3.7	11
1370	Bio-phenolic compounds production through fast pyrolysis: Demineralizing olive pomace pretreatments. <i>Food and Bioproducts Processing</i> , 2023, 137, 200-213.	1.8	5
1371	In-situ and ex-situ catalytic pyrolysis of cellulose to produce furans over red mud-supported transition metal catalysts. <i>Journal of Analytical and Applied Pyrolysis</i> , 2023, 169, 105830.	2.6	12
1372	Recent ReaxFF MD studies on pyrolysis and combustion mechanisms of aviation/aerospace fuels and energetic additives. <i>Energy Advances</i> , 2023, 2, 54-72.	1.4	4

#	ARTICLE	IF	CITATIONS
1373	Effects of reaction temperature and molecular sieve catalyst on the distribution of pyrolysis products of biomass components. <i>Industrial Crops and Products</i> , 2023, 191, 116012.	2.5	4
1374	Monophenols recovery by catalytic pyrolysis of waste sawdust over activated biochar from the brown macroalgae <i>Hizikia fusiformis</i> : Mechanism and life-cycle assessment. <i>Journal of Analytical and Applied Pyrolysis</i> , 2023, 169, 105798.	2.6	6
1375	Catalytic hydrolysis of corncob for production of furfural and cellulose-rich solids: Product characterization and analysis. <i>Biomass and Bioenergy</i> , 2023, 168, 106658.	2.9	2
1376	Biomass-derived two-dimensional carbon materials: Synthetic strategies and electrochemical energy storage applications. <i>FlatChem</i> , 2023, 37, 100467.	2.8	9
1377	Valorization of the biomass of <i>Rhizoclonium hookeri</i> through slow pyrolysis and its thermokinetic investigation for bioenergy potential. <i>Biomass and Bioenergy</i> , 2023, 168, 106690.	2.9	7
1378	Machine learning assisted predicting and engineering specific surface area and total pore volume of biochar. <i>Bioresource Technology</i> , 2023, 369, 128417.	4.8	32
1379	Insight into the thermal conversion of corn stalk gasification in supercritical water based on reactive molecular dynamics simulations. <i>Journal of the Energy Institute</i> , 2023, 106, 101156.	2.7	0
1380	Emission characteristics and influencing mechanisms of PAHs and EC from the combustion of three components (cellulose, hemicellulose, lignin) of biomasses. <i>Science of the Total Environment</i> , 2023, 859, 160359.	3.9	4
1381	A review on lignin waste valorization by catalytic pyrolysis: Catalyst, reaction system, and industrial symbiosis mode. <i>Journal of Environmental Chemical Engineering</i> , 2023, 11, 109113.	3.3	13
1382	Cornstalk pyrolysis for syngas in a two-stage electromagnetic induction reactor. <i>Fuel</i> , 2023, 336, 127124.	3.4	6
1383	Biomass pyrolysis polygeneration with bio-oil recycling: Co-pyrolysis of heavy bio-oil and pine wood leached with light bio-oil for product upgradation. <i>Fuel</i> , 2023, 335, 127057.	3.4	11
1384	Revealing the mechanism on steam co-gasification of cellulose and polyethylene: A combined ReaxFF and DFT study. <i>Fuel</i> , 2023, 334, 126784.	3.4	15
1385	Nitrogen heterocycles in bio-oil produced from hydrothermal liquefaction of biomass: A review. <i>Fuel</i> , 2023, 335, 126995.	3.4	16
1386	Predicting tobacco pyrolysis based on chemical constituents and heating conditions using machine learning approaches. <i>Fuel</i> , 2023, 335, 126895.	3.4	2
1387	Nitrogenous MOFs and their composites as high-performance electrode material for supercapacitors: Recent advances and perspectives. <i>Coordination Chemistry Reviews</i> , 2023, 478, 214967.	9.5	17
1388	Chapter 15. Future Aspects of BTL-FTS Processes. <i>RSC Catalysis Series</i> , 2022, , 428-456.	0.1	0
1389	Transforming Lignin Biomass to Value: Interplay Between Ligninolytic Enzymes and Lignocellulose Depolymerization. <i>Bioenergy Research</i> , 2023, 16, 1246-1263.	2.2	5
1390	Current Challenges and Perspectives for the Catalytic Pyrolysis of Lignocellulosic Biomass to High-Value Products. <i>Catalysts</i> , 2022, 12, 1524.	1.6	13

#	ARTICLE	IF	CITATIONS
1391	A Comprehensive Review of Secondary Carbon Bio-Carriers for Application in Metallurgical Processes: Utilization of Torrefied Biomass in Steel Production. <i>Metals</i> , 2022, 12, 2005.	1.0	13
1392	Analysis of the Catalytic Effects Induced by Alkali and Alkaline Earth Metals (AAEMs) on the Pyrolysis of Beech Wood and Corncob. <i>Catalysts</i> , 2022, 12, 1505.	1.6	3
1393	The Status of Pyrolysis Kinetics Studies by Thermal Analysis: Quality Is Not as Good as It Should and Can Readily Be. <i>Thermo</i> , 2022, 2, 435-452.	0.6	23
1394	Combustion of <i>Salicornia bigelovii</i> Pyrolysis Bio-oil and Surrogate Mixtures: Experimental and Kinetic Study. <i>Energy & Fuels</i> , 2023, 37, 385-400.	2.5	3
1395	Tribological Properties and Mechanism of Rice Husk Carbon Reinforced Non-Asbestos Organic Braking Composite Material. <i>Tribology Transactions</i> , 2023, 66, 208-221.	1.1	0
1396	Bio-Oil Derived from Teff Husk via Slow Pyrolysis Process in Fixed Bed Reactor and Its Characterization. <i>Energies</i> , 2022, 15, 9605.	1.6	5
1397	Influence of pyrolysis temperature on the physicochemical properties of biochars obtained from herbaceous and woody plants. <i>Bioresources and Bioprocessing</i> , 2022, 9, .	2.0	16
1398	The catalytic effect of alkali and alkaline earth metals on the transformation of nitrogen during phenylalanine pyrolysis. <i>Fuel</i> , 2023, 339, 126967.	3.4	4
1399	Evaluation of Pyrolysis Reactivity, Kinetics, and Gasification Reactivity of Corn Cobs after Torrefaction Pretreatment. <i>Energies</i> , 2022, 15, 9277.	1.6	4
1400	Lipase-Catalyzed Synthesis of Biobased Polyesters Containing Levoglucosan Units. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 16845-16852.	3.2	3
1401	Sustainability of corn based-biomass for production of bio-oil and their characterization through solar thermal energy approach. <i>Biomass Conversion and Biorefinery</i> , 0, , .	2.9	1
1402	Optimization of Non-Pyrolyzed Lignin Electrodes for Sustainable Batteries. <i>Advanced Sustainable Systems</i> , 2023, 7, .	2.7	3
1403	A Review on Conversion of Biomass to Liquid Fuels and Methanol through Indirect Liquefaction Route. <i>ChemistrySelect</i> , 2022, 7, .	0.7	3
1404	Real-Time Emission, Chemical Properties, and Dynamic Evolution Mechanism of Volatile Organic Compounds during Co-Pyrolysis of Rice Straw and Semi-Bituminous Coal. <i>ACS ES&T Engineering</i> , 2023, 3, 690-705.	3.7	3
1405	Roles of Mineral Matter in Biomass Processing to Biofuels. <i>Biofuels, Bioproducts and Biorefining</i> , 0, , .	1.9	1
1406	Novel Diesel-Like Liquid Fuel Production by Hydrodeoxygenationâ€œ <i>In Situ</i> Esterification of Lignin-Derived Bio-oil and Plant/Animal Oil. <i>Energy & Fuels</i> , 2023, 37, 2127-2133.	2.5	3
1407	How height-related variations in hybrid poplars affect composition and pyrolytic behaviour: The key role of lignin maturity during woody-biomass pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2023, 169, 105861.	2.6	6
1408	Prediction of thermal degradation of biopolymers in biomass under pyrolysis atmosphere by means of machine learning. <i>Renewable Energy</i> , 2023, 204, 774-787.	4.3	4

#	ARTICLE	IF	CITATIONS
1409	Concentrating solar assisted biomass-to-fuel conversion through gasification: A review. <i>Frontiers in Energy Research</i> , 0, 10, .	1.2	5
1410	<i>Syzygium cumini</i> seed biochar for fabrication of supercapacitor: Role of inorganic content/ash. <i>Journal of Energy Storage</i> , 2023, 60, 106598.	3.9	6
1411	Kinetic and thermodynamic compensation phenomena in C3 and C4 energy crops pyrolysis: Implications on reaction mechanisms and product distributions. <i>Industrial Crops and Products</i> , 2023, 194, 116275.	2.5	4
1412	Mechanism study on pyrolysis interaction between cellulose, hemicellulose, and lignin based on photoionization time-of-flight mass spectrometer (PI-TOF-MS) analysis. <i>Fuel</i> , 2023, 338, 127276.	3.4	13
1413	Exploring kinetic and thermodynamic mechanisms of switchgrass pyrolysis using iterative linear integral isoconversional method and master plots approach. <i>Fuel</i> , 2023, 338, 127266.	3.4	9
1414	Pyrolysis activation energy of cellulosic fibres investigated by a method derived from the first order global model. <i>Carbohydrate Polymers</i> , 2023, 305, 120518.	5.1	3
1415	Potential of <i>Staphylea holocarpa</i> Wood for Renewable Bioenergy. <i>Molecules</i> , 2023, 28, 299.	1.7	0
1416	Improving the Quality of Rice Husk Biochar Through Combined Pretreatment of Rice Husk and Copyrolysis with LDPE. <i>Journal of the Institution of Engineers (India): Series E</i> , 2023, 104, 119-128.	0.5	2
1417	Using Fractional Condensation to Optimize Aqueous Pyrolysis Condensates for Downstream Microbial Conversion. <i>Industrial & Engineering Chemistry Research</i> , 2023, 62, 2792-2803.	1.8	3
1418	Thermal degradation of biocomposites. , 2023, , 287-302.		0
1419	Waste By-Product of Grape Seed Oil Production: Chemical Characterization for Use as a Food and Feed Supplement. <i>Life</i> , 2023, 13, 326.	1.1	10
1420	Green Route Synthesized Iron Nanoparticles for Biohydrogen Production. <i>Clean Energy Production Technologies</i> , 2023, , 109-134.	0.3	0
1422	Combustion chemistry of aromatic hydrocarbons. <i>Progress in Energy and Combustion Science</i> , 2023, 96, 101076.	15.8	23
1423	Effects of different fermentation synergistic chemical treatments on the performance of wheat straw as a nursery substrate. <i>Journal of Environmental Management</i> , 2023, 334, 117486.	3.8	3
1424	Complementary use of generalized logistic mixture model and distributed activation energy model in exploring kinetic mechanisms of wheat straw and torrefied rice husk pyrolysis. <i>Journal of Cleaner Production</i> , 2023, 397, 136560.	4.6	7
1425	Precise preparation of biomass-based porous carbon with pore structure-dependent VOCs adsorption/desorption performance by bacterial pretreatment and its forming process. <i>Environmental Pollution</i> , 2023, 322, 121134.	3.7	9
1426	A critical review of the use of nanomaterials in the biomass pyrolysis process. <i>Journal of Cleaner Production</i> , 2023, 400, 136705.	4.6	18
1427	Lignin and spent bleaching clay into mono-aromatic hydrocarbons by a cascade dual catalytic pyrolysis system: Critical role of spent bleaching clay. <i>International Journal of Biological Macromolecules</i> , 2023, 236, 123879.	3.6	4

#	ARTICLE	IF	CITATIONS
1428	Kinetic and thermodynamic analysis of biomass catalytic pyrolysis with nascent biochar in a two-stage reactor. <i>Combustion and Flame</i> , 2023, 251, 112671.	2.8	7
1429	Thermodegradation of naturally decomposed forest logging residues: Characteristics, kinetics, and thermodynamics. <i>Bioresource Technology</i> , 2023, 376, 128821.	4.8	0
1430	Combination of torrefaction and catalytic fast pyrolysis for aromatic hydrocarbon production from herbaceous medicine waste. <i>Energy</i> , 2023, 270, 126911.	4.5	2
1431	Study on the reaction mechanism of C8+ aliphatic hydrocarbons obtained directly from biomass by hydropyrolysis vapor upgrading. <i>Chemical Engineering Journal</i> , 2023, 464, 142639.	6.6	6
1432	State-of-the-art and future directions of machine learning for biomass characterization and for sustainable biorefinery. <i>Journal of Energy Chemistry</i> , 2023, 81, 42-63.	7.1	14
1433	A study on pyrolysis of wood of different sizes at various temperatures and pressures. <i>Fuel</i> , 2023, 342, 127846.	3.4	7
1434	Assessment of pine wood biomass wastes valorization by pyrolysis with focus on fast pyrolysis biochar production. <i>Journal of the Energy Institute</i> , 2023, 108, 101242.	2.7	13
1435	Mechanism study on the interaction between holocellulose and lignin during secondary pyrolysis of biomass: In terms of molecular model compounds. <i>Fuel Processing Technology</i> , 2023, 244, 107701.	3.7	3
1436	Catalytic mechanism of N-containing biochar on volatile-biochar interaction for the same origin pyrolysis. <i>Journal of Environmental Management</i> , 2023, 336, 117710.	3.8	4
1437	Role of biochar-based catalysts in microwave-induced biomass pyrolysis: Structural properties and modification with Fe-series metals. <i>Fuel</i> , 2023, 341, 127769.	3.4	6
1438	Pyrolysis of pine needles: Parameter optimization using response surface methodology. <i>Bioresource Technology Reports</i> , 2023, 22, 101407.	1.5	3
1439	Reaction mechanisms and N-containing compound formation during shoe manufacturing waste pyrolysis. <i>Fuel Processing Technology</i> , 2023, 244, 107699.	3.7	2
1440	A comprehensive review of coconut-based porous materials for wastewater treatment and CO2 capture. <i>Journal of Environmental Management</i> , 2023, 338, 117825.	3.8	12
1441	Kinetic analysis and modeling of paper-laminated phenolic printed circuit board (PLP-PCB) pyrolysis using distributed activation energy models (DAEMs). <i>Thermochimica Acta</i> , 2023, 724, 179513.	1.2	4
1442	Study on the construction of char-supported NiFe-NiFe2O4 catalyst and its catalytic cracking mechanism of biomass tar under relative low temperature. <i>Fuel</i> , 2023, 346, 128412.	3.4	11
1443	Photoreforming of Waste Polymers for Sustainable Hydrogen Fuel and Chemicals Feedstock: Waste to Energy. <i>Chemical Reviews</i> , 2023, 123, 4443-4509.	23.0	47
1444	Experimental and Aspen Plus modeling research on bio-char and syngas co-production by gasification of biomass waste: the products and reaction energy balance evaluation. <i>Biomass Conversion and Biorefinery</i> , 2024, 14, 5387-5398.	2.9	1
1445	Combustion and emission characterization of upgraded biomass fast pyrolysis oil in a swirl burner. <i>Applications in Energy and Combustion Science</i> , 2023, 13, 100118.	0.9	0

#	ARTICLE	IF	CITATIONS
1446	Influence of the Compression Molding Temperature on VOCs and Odors Produced from Natural Fiber Composite Materials. <i>Coatings</i> , 2023, 13, 371.	1.2	2
1447	Simulating the pyrolysis interactions among hemicellulose, cellulose and lignin in wood waste under real conditions to find the proper way to prepare bio-oil. <i>Renewable Energy</i> , 2023, 205, 851-863.	4.3	15
1448	Furfural from pyrolysis of agroforestry waste: Critical factors for utilisation of C5 and C6 sugars. <i>Renewable and Sustainable Energy Reviews</i> , 2023, 176, 113194.	8.2	9
1449	Pyrolysis of Waste Biomass: Technical and Process Achievements, and Future Developmentâ€”A Review. <i>Energies</i> , 2023, 16, 1829.	1.6	8
1450	Sustainable management of unavoidable biomass wastes. , 2023, 1, 100005.		16
1451	Release and evolution mechanism of oxygen-containing compounds and aromatics during the co-pyrolysis of waste tire and bamboo sawdust/rice husk by Py-GC/MS. <i>Journal of Analytical and Applied Pyrolysis</i> , 2023, 170, 105923.	2.6	1
1452	Investigation of Pyrolysis Kinetic Triplet, Thermodynamics, Product Characteristics and Reaction Mechanism of Waste Cooking Oil Biodiesel under the Influence of Copper Slag. <i>Energies</i> , 2023, 16, 2137.	1.6	0
1453	Biomass-derived carbon anodes for sodium-ion batteries. <i>New Carbon Materials</i> , 2023, 38, 40-66.	2.9	6
1454	Effect of Acid Pretreatment on the Primary Products of Biomass Fast Pyrolysis. <i>Energies</i> , 2023, 16, 2377.	1.6	4
1455	Combustion Characteristics and Visualization Analysis of a Biomass Pellet Oriented in Different Positions in a Fixed-Bed Reactor at Different Operating Conditions. <i>Industrial & Engineering Chemistry Research</i> , 2023, 62, 4281-4296.	1.8	0
1456	Reactivity and performance of steam gasification during biomass batch feeding. <i>Carbon Resources Conversion</i> , 2023, 6, 229-237.	3.2	5
1457	Rice husk pyrolysis polygeneration of levoglucosan-rich bio-oil and functional bio-char: roles of hydrothermal pretreatment and acidic hydrothermal pretreatment on products. <i>Biomass Conversion and Biorefinery</i> , 0, , .	2.9	2
1458	Characterization of slow pyrolysis products from three different cashew wastes. <i>Bioresource Technology</i> , 2023, 376, 128859.	4.8	10
1459	Biofuel production, hydrogen production and water remediation by photocatalysis, biocatalysis and electrocatalysis. <i>Environmental Chemistry Letters</i> , 2023, 21, 1315-1379.	8.3	27
1460	Elucidating Biomass-Derived Pyrolytic Lignin Structures from Demethylation Reactions through Density Functional Theory Calculations. <i>Energy & Fuels</i> , 2023, 37, 5189-5205.	2.5	1
1461	Biochar-clay, biochar-microorganism and biochar-enzyme composites for environmental remediation: a review. <i>Environmental Chemistry Letters</i> , 2023, 21, 1837-1862.	8.3	22
1462	Exploring the Prospective of Weed <i>Amaranthus retroflexus</i> for Biofuel Production through Pyrolysis. <i>Agriculture (Switzerland)</i> , 2023, 13, 687.	1.4	1
1463	Electrical Energy Production Using Biomass. <i>New & Renewable Energy</i> , 2023, 19, 12-21.	0.1	0

#	ARTICLE	IF	CITATIONS
1464	Origin of hydrogen in aromatic and olefin products derived from (Al-) MCM-41 catalysed co-pyrolysis of glucose and polypropylene via isotopic labelling. <i>Clean Energy</i> , 2023, 7, 253-262.	1.5	0
1465	A comprehensive review on how ionic liquids enhance the pyrolysis of cellulose, lignin, and lignocellulose toward a circular economy. <i>Wiley Interdisciplinary Reviews: Energy and Environment</i> , 2023, 12, .	1.9	2
1466	A bibliometric analysis on the agricultural use of biochar in Brazil from 2003 to 2021: research status and promising raw materials. <i>Renewable Agriculture and Food Systems</i> , 2023, 38, .	0.8	3
1467	Multifunctional catalyst-assisted sustainable reformation of lignocellulosic biomass into environmentally friendly biofuel and value-added chemicals. <i>Chemosphere</i> , 2023, 330, 138633.	4.2	5
1468	Numerical Modeling of Thermochemical Conversion of Biomass and Tires as Fuels for Cement Clinker Production. <i>Recycling</i> , 2023, 8, 41.	2.3	1
1469	Experimental analysis of the recovery and chemical properties of pyrolytic oil derived from medical waste with varying components combined via a systematic combination approach. <i>International Journal of Green Energy</i> , 2024, 21, 500-511.	2.1	0
1470	Potential of charcoal from non-commercial Corymbia and Eucalyptus wood for use in the steel industry. <i>Renewable Energy</i> , 2023, 211, 179-187.	4.3	2
1471	Influences of iron additives on microwave-assisted pyrolysis of woody biomass and microwave-induced discharge with spherical bio-char. <i>Energy</i> , 2023, 276, 127549.	4.5	3
1472	Lignocellulosic biomass valorization via bio-photo/electro hybrid catalytic systems. <i>Biotechnology Advances</i> , 2023, 66, 108157.	6.0	5
1473	Online analysis method for pyrolysis products with large volatility difference at high temperature and pressure: Pyrolysis kinetics of supercritical pressure n-decane. <i>Fuel</i> , 2023, 346, 128245.	3.4	0
1474	Products distribution and heavy metals migration during catalytic pyrolysis of refinery oily sludge. <i>Energy Reports</i> , 2023, 9, 109-117.	2.5	4
1475	Insights into the chemical structure evolution and carbonisation mechanism of biomass during hydrothermal treatment. <i>Journal of the Energy Institute</i> , 2023, 108, 101257.	2.7	9
1476	Treatment of wastewater from thermal desorption of oil-contaminated soil: Performance and sorption mechanism of pyrolytic modified sawdust. <i>Environmental Science: Water Research and Technology</i> , 0, , .	1.2	0
1477	Aromatics production from catalytic pyrolysis of waste cassava residue using La and P modified ZSM-5: Experimental and kinetic study. <i>Industrial Crops and Products</i> , 2023, 198, 116753.	2.5	6
1478	Synergistic effects and its influencing factors during co-processing of coal and biomass in a wire-mesh reactor. <i>Journal of the Energy Institute</i> , 2023, , 101261.	2.7	0
1490	Lignocellulosic biomass: A feedstock to support the circular economy. , 2023, , 23-46.		1
1491	Biomass Conversion By Pyrolysis Process. , 2023, , .		0
1504	Technologies for Hydrogen Production From Fossil Fuels and Hydrocarbons. , 2023, , .		0

#	ARTICLE	IF	CITATIONS
1523	Hydrothermal Treatment of Biomass Feedstocks for Sustainable Production of Chemicals, Fuels, and Materials: Progress and Perspectives. <i>Chemical Reviews</i> , 2023, 123, 7193-7294.	23.0	39
1525	Kinetics and Thermodynamic Studies on Pyrolysis Behavior of <i>Peltophorum Pterocarpum</i> Via Thermogravimetric Analysis. , 2023, , 155-164.		0
1545	Agriculture Biomass Characterization and Exploitation. , 2023, , .		0
1567	Special Issue. Lignocellulose at Multiscale: Preparation Characterization & Application. <i>Chemistry Africa</i> , 0, , .	1.2	0
1571	Feedstock Conditioning and Pretreatment of Lignocellulose Biomass. <i>Green Energy and Technology</i> , 2023, , 47-68.	0.4	0
1574	The current status of hydrogen energy: an overview. <i>RSC Advances</i> , 2023, 13, 28262-28287.	1.7	4
1578	Preparation of Green N-Doped Biochar Materials with Biomass Pyrolysis and Their Application to Catalytic Systems. <i>Biofuels and Biorefineries</i> , 2023, , 345-367.	0.5	0
1580	Biofuels production using pyrolysis techniques. , 2024, , 103-125.		1
1586	Decarbonising bioenergy through biomass utilisation in chemical looping combustion and gasification: a review. <i>Environmental Chemistry Letters</i> , 0, , .	8.3	1
1607	Hydrothermal Conversion of Lignocellulosic Biomass to Hydrochar: Production, Characterization, and Applications. , 0, , .		0
1621	Kinetic study on the pyrolysis of tapioca solid waste. <i>AIP Conference Proceedings</i> , 2023, , .	0.3	0
1627	Sugarcane residues: insights on exploitation, energetic and nonenergetic uses, and the production potential in Brazil and in the state of Tocantins. , 2024, , 163-174.		0
1638	Assessment of Thermal Behavior and Pyrolytic Kinetics of Selected Agro-residues through Thermogravimetric Analysis. <i>Springer Proceedings in Energy</i> , 2023, , 185-198.	0.2	0
1674	Biochar-Based Polymer Composites: A Pathway to Enhanced Electrical Conductivity. , 2023, , 115-126.		0
1689	Production of Biochar by Slow and Solar-Biomass Pyrolysis: Focus on the Output Configuration Assessment, Adaptability, and Barriers to Market Penetration. <i>Arabian Journal for Science and Engineering</i> , 0, , .	1.7	0
1724	Nanophotocatalytic conversion of biomass to bioenergy. , 2024, , 189-214.		0
1734	Micro- and nano-biochar fertilizers for sustainable agroecosystems. , 2024, , 325-343.		0