

Bin Hu

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

52
papers

705
citations

15
h-index

24
g-index

55
ext. papers

1,004
ext. citations

5.9
avg, IF

4.65
L-index

#	Paper	IF	Citations
52	Production of phenolic-rich bio-oil from catalytic fast pyrolysis of biomass using magnetic solid base catalyst. <i>Energy Conversion and Management</i> , 2015 , 106, 1309-1317	10.6	57
51	Pyrolysis mechanism of holocellulose-based monosaccharides: The formation of hydroxyacetaldehyde. <i>Journal of Analytical and Applied Pyrolysis</i> , 2016 , 120, 15-26	6	47
50	Mechanism of cellulose fast pyrolysis: The role of characteristic chain ends and dehydrated units. <i>Combustion and Flame</i> , 2018 , 198, 267-277	5.3	44
49	Pyrolysis mechanism of glucose and mannose: The formation of 5-hydroxymethyl furfural and furfural. <i>Journal of Energy Chemistry</i> , 2018 , 27, 486-501	12	39
48	Formation mechanism of HCN and NH ₃ during indole pyrolysis: A theoretical DFT study. <i>Journal of the Energy Institute</i> , 2020 , 93, 649-657	5.7	39
47	Recent Progress in Quantum Chemistry Modeling on the Pyrolysis Mechanisms of Lignocellulosic Biomass. <i>Energy & Fuels</i> , 2020 , 34, 10384-10440	4.1	37
46	Intermolecular interaction mechanism of lignin pyrolysis: A joint theoretical and experimental study. <i>Fuel</i> , 2018 , 215, 386-394	7.1	36
45	Direct conversion of cellulose and raw biomass to acetonitrile by catalytic fast pyrolysis in ammonia. <i>Green Chemistry</i> , 2019 , 21, 812-820	10	35
44	Mechanism insight into the fast pyrolysis of xylose, xylobiose and xylan by combined theoretical and experimental approaches. <i>Combustion and Flame</i> , 2019 , 206, 177-188	5.3	29
43	Insight into the formation mechanism of levoglucosenone in phosphoric acid-catalyzed fast pyrolysis of cellulose. <i>Journal of Energy Chemistry</i> , 2020 , 43, 78-89	12	28
42	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	6	27
41	A Comprehensive Study on Pyrolysis Mechanism of Substituted EO-4 Type Lignin Dimers. <i>International Journal of Molecular Sciences</i> , 2017 , 18,	6.3	24
40	A novel interaction mechanism in lignin pyrolysis: Phenolics-assisted hydrogen transfer for the decomposition of the EO-4 linkage. <i>Combustion and Flame</i> , 2021 , 225, 395-405	5.3	19
39	Mechanism study on the effect of alkali metal ions on the formation of HCN as NO _x precursor during coal pyrolysis. <i>Journal of the Energy Institute</i> , 2019 , 92, 604-612	5.7	18
38	Insight into the Formation of Anhydrosugars in Glucose Pyrolysis: A Joint Computational and Experimental Investigation. <i>Energy & Fuels</i> , 2017 , 31, 8291-8299	4.1	17
37	Selective production of nicotine from catalytic fast pyrolysis of tobacco biomass with Pd/C catalyst. <i>Journal of Analytical and Applied Pyrolysis</i> , 2016 , 117, 88-93	6	14
36	Selective production of 4-ethyl guaiacol from catalytic fast pyrolysis of softwood biomass using Pd/SBA-15 catalyst. <i>Journal of Analytical and Applied Pyrolysis</i> , 2017 , 123, 237-243	6	13

35	Formation mechanism of hydroxyacetone in glucose pyrolysis: A combined experimental and theoretical study. <i>Proceedings of the Combustion Institute</i> , 2019 , 37, 2741-2748	5.9	13
34	Influence of inherent alkali metal chlorides on pyrolysis mechanism of a lignin model dimer based on DFT study. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019 , 137, 151-160	4.1	13
33	Interaction characteristics and mechanism in the fast co-pyrolysis of cellulose and lignin model compounds. <i>Journal of Thermal Analysis and Calorimetry</i> , 2017 , 130, 975-984	4.1	12
32	Calcium formate assisted catalytic pyrolysis of pine for enhanced production of monocyclic aromatic hydrocarbons over bimetal-modified HZSM-5. <i>Bioresource Technology</i> , 2020 , 315, 123805	11	12
31	Theoretical Investigation of the Formation Mechanism of NH ₃ and HCN during Pyrrole Pyrolysis: The Effect of H ₂ O. <i>Molecules</i> , 2018 , 23,	4.8	11
30	Migration and transformation of lead species over CaO surface in municipal solid waste incineration fly Ash: A DFT study. <i>Waste Management</i> , 2021 , 120, 59-67	8.6	10
29	On the mechanism of xylan pyrolysis by combined experimental and computational approaches. <i>Proceedings of the Combustion Institute</i> , 2021 , 38, 4215-4223	5.9	10
28	Insight into the mechanism of secondary reactions in cellulose pyrolysis: interactions between levoglucosan and acetic acid. <i>Cellulose</i> , 2019 , 26, 8279-8290	5.5	9
27	Selective preparation of 1-hydroxy-3,6-dioxabicyclo[3.2.1]octan-2-one by fast pyrolysis of cellulose catalyzed with metal-loaded nitrated HZSM-5. <i>Bioresource Technology</i> , 2020 , 309, 123370	11	9
26	Selective Analytical Production of 1-Hydroxy-3,6-dioxabicyclo[3.2.1]octan-2-one from Catalytic Fast Pyrolysis of Cellulose with Zinc-Aluminium Layered Double Oxide Catalyst. <i>BioResources</i> , 2015 , 10,	1.3	8
25	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	5.9	8
24	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	6	8
23	Catalytic Mechanism of Calcium on the Formation of HCN during Pyrolysis of Pyrrole and Indole: A Theoretical Study. <i>Energy & Fuels</i> , 2019 , 33, 11516-11523	4.1	7
22	Experimental and Theoretical Studies on the Pyrolysis Mechanism of β -Type Lignin Dimer Model Compound. <i>BioResources</i> , 2016 , 11,	1.3	7
21	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	2.8	7
20	Formation mechanism of NO precursors during the pyrolysis of 2,5-diketopiperazine based on experimental and theoretical study. <i>Science of the Total Environment</i> , 2021 , 801, 149663	10.2	7
19	Theoretical study on the effect of the substituent groups on the homolysis of the ether bond in lignin trimer model compounds. <i>Journal of Fuel Chemistry and Technology</i> , 2016 , 44, 335-341	1.8	6
18	Mechanism study on the formation of furfural during zinc chloride-catalyzed pyrolysis of xylose. <i>Fuel</i> , 2021 , 295, 120656	7.1	6

17	Theoretical insights into the roles of active oxygen species in heterogeneous oxidation of CO over Mn/TiO ₂ catalyst. <i>Applied Catalysis A: General</i> , 2021 , 616, 118104	5.1	5
16	Effect of WO ₃ and MoO ₃ doping on the interaction mechanism between arsenic oxide and V ₂ O ₅ -based SCR catalyst: A theoretical account. <i>Molecular Catalysis</i> , 2021 , 499, 111317	3.3	4
15	A sustainable strategy for the production of 1,4:3,6-dianhydro-β-D-glucopyranose through oxalic acid-assisted fast pyrolysis of cellulose. <i>Chemical Engineering Journal</i> , 2022 , 436, 135200	14.7	2
14	A theoretical investigation on the thermal decomposition of pyridine and the effect of H ₂ O on the formation of NO _x precursors. <i>Frontiers of Chemical Science and Engineering</i> , 2021 , 15, 1217-1228	4.5	2
13	Mechanism insight into the formation of H ₂ S from thiophene pyrolysis: A theoretical study. <i>Frontiers of Environmental Science and Engineering</i> , 2021 , 15, 1	5.8	2
12	Hydroxyl-Assisted Hydrogen Transfer Interaction in Lignin Pyrolysis: An Extended Concerted Interaction Mechanism. <i>Energy & Fuels</i> , 2021 , 35, 13170-13180	4.1	2
11	Formation mechanism of CH ₄ during lignin pyrolysis: A theoretical study. <i>Journal of the Energy Institute</i> , 2021 , 100, 237-237	5.7	1
10	Reaction characteristics and mechanisms of sorbitol fast pyrolysis. <i>Journal of Fuel Chemistry and Technology</i> , 2021 , 49, 1821-1831	1.8	1
9	Novel design strategies for perovskite materials with improved stability and suitable band gaps. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 20288-20297	3.6	0
8	Mechanical insight into the formation of HS from thiophene pyrolysis: The influence of HO. <i>Chemosphere</i> , 2021 , 279, 130628	8.4	0
7	Mechanism insights into CO oxidation over transition metal modified VO/TiO catalysts: A theoretical study.. <i>Chemosphere</i> , 2022 , 297, 134168	8.4	0
6	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 , 105531	6	0
5	The oxalic acid-assisted fast pyrolysis of biomass for the sustainable production of furfural. <i>Fuel</i> , 2022 , 322, 124279	7.1	0
4	Enhanced production of levoglucosone from pretreatment assisted catalytic pyrolysis of waste paper. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022 , 165, 105567	6	0
3	Role of glycosidic bond in initial cellulose pyrolysis: Investigation by machine learning simulation. <i>Applications in Energy and Combustion Science</i> , 2022 , 9, 100055	0.8	
2	Mechanism insights into CO oxidation on a low-cost N doped pyrite: A molecular simulation study. <i>Applied Surface Science</i> , 2022 , 575, 151657	6.7	
1	Sensing Mechanism of HO, NH, and O on the Stability-Improved CsPb(SCN)Br Surface: A Quantum Dynamics Investigation. <i>ACS Omega</i> , 2021 , 6, 24244-24255	3.9	