Bin Hu

List of Publications by Year
in descending order

41 papers	1,257 citations	361413 20 h-index	361022 35 g-index
41 all docs	41 docs citations	41 times ranked	982 citing authors

#	Article	IF	Citations
1	Deep Learning Based Hand Gesture Recognition and UAV Flight Controls. International Journal of Automation and Computing, 2020, 17, 17-29.	4.5	95
2	Recent Progress in Quantum Chemistry Modeling on the Pyrolysis Mechanisms of Lignocellulosic Biomass. Energy & Fuels, 2020, 34, 10384-10440.	5.1	91
3	Mechanism of cellulose fast pyrolysis: The role of characteristic chain ends and dehydrated units. Combustion and Flame, 2018, 198, 267-277.	5.2	72
4	Production of phenolic-rich bio-oil from catalytic fast pyrolysis of biomass using magnetic solid base catalyst. Energy Conversion and Management, 2015, 106, 1309-1317.	9.2	70
5	Pyrolysis mechanism of glucose and mannose: The formation of 5-hydroxymethyl furfural and furfural. Journal of Energy Chemistry, 2018, 27, 486-501.	12.9	65
6	Pyrolysis mechanism of holocellulose-based monosaccharides: The formation of hydroxyacetaldehyde. Journal of Analytical and Applied Pyrolysis, 2016, 120, 15-26.	5.5	63
7	Effects of torrefaction on yield and quality of pyrolysis char and its application on preparation of activated carbon. Journal of Analytical and Applied Pyrolysis, 2016, 119, 217-223.	5.5	63
8	Formation mechanism of HCN and NH3 during indole pyrolysis: A theoretical DFT study. Journal of the Energy Institute, 2020, 93, 649-657.	5.3	60
9	Insight into the formation mechanism of levoglucosenone in phosphoric acid-catalyzed fast pyrolysis of cellulose. Journal of Energy Chemistry, 2020, 43, 78-89.	12.9	54
10	Intermolecular interaction mechanism of lignin pyrolysis: A joint theoretical and experimental study. Fuel, 2018, 215, 386-394.	6.4	49
11	Direct conversion of cellulose and raw biomass to acetonitrile by catalytic fast pyrolysis in ammonia. Green Chemistry, 2019, 21, 812-820.	9.0	46
12	Catalytic mechanism of sulfuric acid in cellulose pyrolysis: A combined experimental and computational investigation. Journal of Analytical and Applied Pyrolysis, 2018, 134, 183-194.	5.5	44
13	Mechanism insight into the fast pyrolysis of xylose, xylobiose and xylan by combined theoretical and experimental approaches. Combustion and Flame, 2019, 206, 177-188.	5.2	42
14	Mechanism study on the effect of alkali metal ions on the formation of HCN as NOx precursor during coal pyrolysis. Journal of the Energy Institute, 2019, 92, 604-612.	5.3	37
15	Formation mechanism of hydroxyacetone in glucose pyrolysis: A combined experimental and theoreticalÂstudy. Proceedings of the Combustion Institute, 2019, 37, 2741-2748.	3.9	32
16	A Comprehensive Study on Pyrolysis Mechanism of Substituted Î²-O-4 Type Lignin Dimers. International Journal of Molecular Sciences, 2017, 18, 2364.	4.1	30
17	Insight into the mechanism of secondary reactions in cellulose pyrolysis: interactions between levoglucosan and acetic acid. Cellulose, 2019, 26, 8279-8290.	4.9	25
18	On the mechanism of xylan pyrolysis by combined experimental and computational approaches. Proceedings of the Combustion Institute, 2021, 38, 4215-4223.	3.9	24

#	Article	IF	Citations
19	Influence of inherent alkali metal chlorides on pyrolysis mechanism of a lignin model dimer based on DFT study. Journal of Thermal Analysis and Calorimetry, 2019, 137, 151-160.	3.6	23
20	Insight into the Formation of Anhydrosugars in Glucose Pyrolysis: A Joint Computational and Experimental Investigation. Energy & Fuels, 2017, 31, 8291-8299.	5.1	22
21	Selective production of nicotyrine from catalytic fast pyrolysis of tobacco biomass with Pd/C catalyst. Journal of Analytical and Applied Pyrolysis, 2016, 117, 88-93.	5.5	21
22	Interaction characteristics and mechanism in the fast co-pyrolysis of cellulose and lignin model compounds. Journal of Thermal Analysis and Calorimetry, 2017, 130, 975-984.	3.6	19
23	Theoretical study of the effect of hydrogen radicals on the formation of HCN from pyrrole pyrolysis. Journal of the Energy Institute, 2019, 92, 1468-1475.	5.3	19
24	A Survey of Deep Learning on Mobile Devices: Applications, Optimizations, Challenges, and Research Opportunities. Proceedings of the IEEE, 2022, 110, 334-354.	21.3	19
25	Selective production of 4-ethyl guaiacol from catalytic fast pyrolysis of softwood biomass using Pd/SBA-15 catalyst. Journal of Analytical and Applied Pyrolysis, 2017, 123, 237-243.	5.5	18
26	Hydroxyl-Assisted Hydrogen Transfer Interaction in Lignin Pyrolysis: An Extended Concerted Interaction Mechanism. Energy & Fuels, 2021, 35, 13170-13180.	5.1	17
27	A sustainable strategy for the production of 1,4:3,6-dianhydro-Î±-d-glucopyranose through oxalic acid-assisted fast pyrolysis of cellulose. Chemical Engineering Journal, 2022, 436, 135200.	12.7	17
28	Theoretical Investigation of the Formation Mechanism of NH3 and HCN during Pyrrole Pyrolysis: The Effect of H2O. Molecules, 2018, 23, 711.	3.8	16
29	Interaction between Acetic Acid and Glycerol: A Model for Secondary Reactions during Holocellulose Pyrolysis. Journal of Physical Chemistry A, 2019, 123, 674-681.	2.5	12
30	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. Industrial Crops and Products, 2021, 162, 113269.	5.2	12
31	Theoretical insights into the roles of active oxygen species in heterogeneous oxidation of CO over Mn/TiO2 catalyst. Applied Catalysis A: General, 2021, 616, 118104.	4.3	12
32	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. BioResources, 2015, 10, .	1.0	12
33	The oxalic acid-assisted fast pyrolysis of biomass for the sustainable production of furfural. Fuel, 2022, 322, 124279.	6.4	11
34	Deep Learning Based Hand Gesture Recognition and UAV Flight Controls. , 2018, , .		10
35	Mechanical insight into the formation of H2S from thiophene pyrolysis: The influence of H2O. Chemosphere, 2021, 279, 130628.	8.2	9
36	Mechanism insights into CO oxidation over transition metal modified V2O5/TiO2 catalysts: A theoretical study. Chemosphere, 2022, 297, 134168.	8.2	9

#	Article	IF	Citations
37	Experimental and Theoretical Studies on the Pyrolysis Mechanism of Î²-1-Type Lignin Dimer Model Compound. BioResources, 2016, 11, .	1.0	8
38	Formation mechanism of CH4 during lignin pyrolysis: A theoretical study. Journal of the Energy Institute, 2022, 100, 237-244.	5.3	5
39	Understanding the sensing mechanisms of perovskite materials for gases with different properties: a perspective from the oxidationâ€"reduction states of central metal ions. Journal of Materials Chemistry C, 2021, 9, 15511-15521.	5.5	3
40	Novel design strategies for perovskite materials with improved stability and suitable band gaps. Physical Chemistry Chemical Physics, 2021, 23, 20288-20297.	2.8	1
41	Sensing Mechanism of H2O, NH3, and O2 on the Stability-Improved Cs2Pb(SCN)2Br2 Surface: A Quantum Dynamics Investigation. ACS Omega, 2021, 6, 24244-24255.	3.5	0