Xianglan Bai

List of Publications by Year
in descending order

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Version: 2024-02-01

46	2,748	186265	223800
papers	citations	28 h-index	46 g-index

51	51	51	2801
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fast pyrolysis of biomass and waste plastic in a fluidized bed reactor. Fuel, 2015, 156, 40-46.	6.4	245
2	Catalytic co-pyrolysis of biomass and polyethylene in a tandem micropyrolyzer. Fuel, 2016, 166, 227-236.	6.4	230
3	Formation of phenolic oligomers during fast pyrolysis of lignin. Fuel, 2014, 128, 170-179.	6.4	199
4	Effect of catalyst contact mode and gas atmosphere during catalytic pyrolysis of waste plastics. Energy Conversion and Management, 2017, 142, 441-451.	9.2	158
5	Pyrolytic Sugars from Cellulosic Biomass. ChemSusChem, 2012, 5, 2228-2236.	6.8	155
6	High-Solid Lignocellulose Processing Enabled by Natural Deep Eutectic Solvent for Lignin Extraction and Industrially Relevant Production of Renewable Chemicals. ACS Sustainable Chemistry and Engineering, 2018, 6, 12205-12216.	6.7	137
7	Lignin Valorization through Thermochemical Conversion: Comparison of Hardwood, Softwood and Herbaceous Lignin. ACS Sustainable Chemistry and Engineering, 2016, 4, 6608-6617.	6.7	105
8	The use of calcium hydroxide pretreatment to overcome agglomeration of technical lignin during fast pyrolysis. Green Chemistry, 2015, 17, 4748-4759.	9.0	80
9	Secondary reactions of levoglucosan and char in the fast pyrolysis of cellulose. Environmental Progress and Sustainable Energy, 2012, 31, 256-260.	2.3	79
10	Role of levoglucosan physiochemistry in cellulose pyrolysis. Journal of Analytical and Applied Pyrolysis, 2013, 99, 58-65.	5.5	73
11	Repolymerization of pyrolytic lignin for producing carbon fiber with improved properties. Biomass and Bioenergy, 2016, 95, 19-26.	5.7	72
12	Insights into Structural Changes of Lignin toward Tailored Properties during Deep Eutectic Solvent Pretreatment. ACS Sustainable Chemistry and Engineering, 2020, 8, 9783-9793.	6.7	72
13	Recovery and Utilization of Lignin Monomers as Part of the Biorefinery Approach. Energies, 2016, 9, 808.	3.1	69
14	Hydrogen-Donor-Assisted Solvent Liquefaction of Lignin to Short-Chain Alkylphenols Using a Micro Reactor/Gas Chromatography System. Energy & Fuels, 2014, 28, 6429-6437.	5.1	67
15	Synergistic enhancement of product quality through fast co-pyrolysis of acid pretreated biomass and waste plastic. Energy Conversion and Management, 2018, 164, 629-638.	9.2	66
16	Pyrolysis mechanisms of methoxy substituted Î±-O-4 lignin dimeric model compounds and detection of free radicals using electron paramagnetic resonance analysis. Journal of Analytical and Applied Pyrolysis, 2014, 110, 254-263.	5.5	61
17	Role of Hydrogen Transfer during Catalytic Copyrolysis of Lignin and Tetralin over HZSM-5 and HY Zeolite Catalysts. ACS Sustainable Chemistry and Engineering, 2016, 4, 4237-4250.	6.7	61
18	The effect of low-concentration oxygen in sweep gas during pyrolysis of red oak using a fluidized bed reactor. Fuel, 2014, 124, 49-56.	6.4	60

#	Article	IF	Citations
19	An experimental study of the competing processes of evaporation and polymerization of levoglucosan in cellulose pyrolysis. Journal of Analytical and Applied Pyrolysis, 2013, 99, 130-136.	5.5	56
20	Quantitative Investigation of Free Radicals in Bioâ€Oil and their Potential Role in Condensedâ€Phase Polymerization. ChemSusChem, 2015, 8, 894-900.	6.8	56
21	Towards producing high-quality lignin-based carbon fibers: A review of crucial factors affecting lignin properties and conversion techniques. International Journal of Biological Macromolecules, 2021, 189, 768-784.	7.5	52
22	Thermal conductivity and annealing effect on structure of lignin-based microscale carbon fibers. Carbon, 2017, 121, 35-47.	10.3	50
23	Production of solubilized carbohydrate from cellulose using non-catalytic, supercritical depolymerization in polar aprotic solvents. Green Chemistry, 2016, 18, 1023-1031.	9.0	45
24	One-pot selective conversion of lignocellulosic biomass into furfural and co-products using aqueous choline chloride/methyl isobutyl ketone biphasic solvent system. Bioresource Technology, 2019, 289, 121708.	9.6	45
25	Potential of producing carbon fiber from biorefinery corn stover lignin with high ash content. Journal of Applied Polymer Science, 2018, 135, 45736.	2.6	39
26	Anisotropic thermal conductivities and structure in lignin-based microscale carbon fibers. Carbon, 2019, 147, 58-69.	10.3	37
27	Modeling the physiochemistry of levoglucosan during cellulose pyrolysis. Journal of Analytical and Applied Pyrolysis, 2014, 105, 363-368.	5.5	35
28	Partial oxidative pyrolysis of acid infused red oak using a fluidized bed reactor to produce sugar rich bio-oil. Fuel, 2014, 130, 135-141.	6.4	33
29	Agricultural residueâ€derived lignin as the filler of polylactic acid composites and the effect of lignin purity on the composite performance. Journal of Applied Polymer Science, 2019, 136, 47915.	2.6	29
30	The Influence of Alkali and Alkaline Earth Metals and the Role of Acid Pretreatments in Production of Sugars from Switchgrass Based on Solvent Liquefaction. Energy & Fuels, 2014, 28, 1111-1120.	5.1	26
31	Low-pressure two-stage catalytic hydropyrolysis of lignin and lignin-derived phenolic monomers using zeolite-based bifunctional catalysts. Journal of Analytical and Applied Pyrolysis, 2020, 146, 104779.	5.5	26
32	Understanding Low-Pressure Hydropyrolysis of Lignin Using Deuterated Sodium Formate. ACS Sustainable Chemistry and Engineering, 2017, 5, 8939-8950.	6.7	25
33	Producing high yield of levoglucosan by pyrolyzing nonthermal plasma-pretreated cellulose. Green Chemistry, 2020, 22, 2036-2048.	9.0	20
34	Controlled Radical Polymerization of Crude Lignin Bio-oil Containing Multihydroxyl Molecules for Methacrylate Polymers and the Potential Applications. ACS Sustainable Chemistry and Engineering, 2019, 7, 9050-9060.	6.7	19
35	Upcycling polyamide containing post-consumer Tetra Pak carton packaging to valuable chemicals and recyclable polymer. Waste Management, 2021, 131, 423-432.	7.4	18
36	Enabling high-quality carbon fiber through transforming lignin into an orientable and melt-spinnable polymer. Journal of Cleaner Production, 2021, 307, 127252.	9.3	18

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37	An experimental study on the detrimental effects of deicing fluids on the performance of icephobic coatings for aircraft icing mitigation. Aerospace Science and Technology, 2021, 119, 107090.	4.8	18
38	Production of biofuel precursor chemicals from the mixture of cellulose and polyvinylchloride in polar aprotic solvent. Waste Management, 2018, 78, 894-902.	7.4	17
39	Solubilized Carbohydrate Production by Acidâ€Catalyzed Depolymerization of Cellulose in Polar Aprotic Solvents. ChemistrySelect, 2018, 3, 4777-4785.	1.5	17
40	Comparative study of the solvolytic deconstruction of corn stover lignin in batch and flow-through reactors. Green Chemistry, 2021, 23, 7731-7742.	9.0	17
41	Biofuels and Chemicals from Lignin Based on Pyrolysis. Biofuels and Biorefineries, 2016, , 263-287.	0.5	13
42	Tunable Wettability of Biodegradable Multilayer Sandwich-Structured Electrospun Nanofibrous Membranes. Polymers, 2020, 12, 2092.	4.5	12
43	Thermal treatment of pyrolytic lignin and polyethylene terephthalate toward carbon fiber production. Journal of Applied Polymer Science, 2020, 137, 48843.	2.6	11
44	Plasma electrolysis of cellulose in polar aprotic solvents for production of levoglucosenone. Green Chemistry, 2020, 22, 7871-7883.	9.0	11
45	Co-conversion of wood and polyvinyl chloride to valuable chemicals and high-quality solid fuel. Waste Management, 2022, 144, 376-386.	7.4	7
46	One-pot production of oxygenated monomers and selectively oxidized lignin from biomass based on plasma electrolysis. Green Chemistry, 0, , .	9.0	4