Xiao-Jun Shen

List of Publications by Year
in descending order

53 papers	2,822 citations	185998 28 h-index	182168 51 g-index
58 all docs	58 docs citations	58 times ranked	2085 citing authors

#	Article	IF	Citations
1	Facile fractionation of lignocelluloses by biomass-derived deep eutectic solvent (DES) pretreatment for cellulose enzymatic hydrolysis and lignin valorization. Green Chemistry, 2019, 21, 275-283.	4.6	445
2	Lignin-enzyme interaction: A roadblock for efficient enzymatic hydrolysis of lignocellulosics. Renewable and Sustainable Energy Reviews, 2022, 154, 111822.	8.2	211
3	Structureâ€“function relationships of deep eutectic solvents for lignin extraction and chemical transformation. Green Chemistry, 2020, 22, 7219-7232.	4.6	151
4	Structural and Morphological Transformations of Lignin Macromolecules during Bio-Based Deep Eutectic Solvent (DES) Pretreatment. ACS Sustainable Chemistry and Engineering, 2020, 8, 2130-2137.	3.2	131
5	In-depth interpretation of the structural changes of lignin and formation of diketones during acidic deep eutectic solvent pretreatment. Green Chemistry, 2020, 22, 1851-1858.	4.6	123
6	Lewis Acid-Facilitated Deep Eutectic Solvent (DES) Pretreatment for Producing High-Purity and Antioxidative Lignin. ACS Sustainable Chemistry and Engineering, 2020, 8, 1050-1057.	3.2	117
7	Selective hydrogenation of 5-(hydroxymethyl)furfural to 5-methylfurfural over single atomic metals anchored on Nb2O5. Nature Communications, 2021, 12, 584.	5.8	92
8	Selectively transform lignin into value-added chemicals. Chinese Chemical Letters, 2019, 30, 15-24.	4.8	90
9	Catalytic self-transfer hydrogenolysis of lignin with endogenous hydrogen: road to the carbon-neutral future. Chemical Society Reviews, 2022, 51, 1608-1628.	18.7	89
10	Novel recyclable deep eutectic solvent boost biomass pretreatment for enzymatic hydrolysis. Bioresource Technology, 2020, 307, 123237.	4.8	74
11	Selective Utilization of the Methoxy Group in Lignin to Produce Acetic Acid. Angewandte Chemie - International Edition, 2017, 56, 14868-14872.	7.2	72
12	Recent advances in lignocellulose prior-fractionation for biomaterials, biochemicals, and bioenergy. Carbohydrate Polymers, 2021, 261, 117884.	5.1	72
13	Selective catalytic transformation of lignin with guaiacol as the only liquid product. Chemical Science, 2020, 11, 1347-1352.	3.7	68
14	Productâ€oriented Direct Cleavage of Chemical Linkages in Lignin. ChemSusChem, 2020, 13, 4367-4381.	3.6	66
15	Selective valorization of lignin to phenol by direct transformation of C _{sp2} â€“C _{sp3} and Câ€“O bonds. Science Advances, 2020, 6, .	4.7	62
16	Effects of aluminum chloride-catalyzed hydrothermal pretreatment on the structural characteristics of lignin and enzymatic hydrolysis. Bioresource Technology, 2016, 206, 57-64.	4.8	61
17	Halogen-free fixation of carbon dioxide into cyclic carbonates <i>via</i> bifunctional organocatalysts. Green Chemistry, 2021, 23, 1147-1153.	4.6	58
18	A well-defined lignin-based filler for tuning the mechanical properties of polymethyl methacrylate. Green Chemistry, 2021, 23, 2329-2335.	4.6	56

#	Article	IF	Citations
19	Understanding the structural changes and depolymerization of Eucalyptus lignin under mild conditions in aqueous AlCl₃. RSC Advances, 2016, 6, 45315-45325.	1.7	52
20	Improved value and carbon footprint by complete utilization of corncob lignocellulose. Chemical Engineering Journal, 2021, 419, 129565.	6.6	50
21	Controllable fabrication and magnetic-field assisted alignment of Fe3O4-coated Ag nanowires via a facile co-precipitation method. Journal of Materials Chemistry C, 2013, 1, 4879.	2.7	49
22	Lignocellulose fractionation into furfural and glucose by AlCl3-catalyzed DES/MIBK biphasic pretreatment. International Journal of Biological Macromolecules, 2018, 117, 721-726.	3.6	48
23	Evaluation of organosolv pretreatment on the structural characteristics of lignin polymers and follow-up enzymatic hydrolysis of the substrates from Eucalyptus wood. International Journal of Biological Macromolecules, 2017, 97, 447-459.	3.6	42
24	A facile method for char elimination during base-catalyzed depolymerization and hydrogenolysis of lignin. Fuel Processing Technology, 2017, 167, 491-501.	3.7	39
25	Self-supported hydrogenolysis of aromatic ethers to arenes. Science Advances, 2019, 5, eaax6839.	4.7	39
26	A fully heterogeneous catalyst Br-LDH for the cycloaddition reactions of CO₂ with epoxides. Chemical Communications, 2019, 55, 6942-6945.	2.2	37
27	Selective hydrogenation of aromatic furfurals into aliphatic tetrahydrofurfural derivatives. Green Chemistry, 2020, 22, 4937-4942.	4.6	34
28	Selective utilization of methoxy groups in lignin for <i>N</i>-methylation reaction of anilines. Chemical Science, 2019, 10, 1082-1088.	3.7	33
29	A mild AlCl₃-catalyzed ethanol pretreatment and its effects on the structural changes of Eucalyptus wood lignin and the saccharification efficiency. RSC Advances, 2016, 6, 57986-57995.	1.7	27
30	Ru-Catalyzed methanol homologation with CO₂ and H₂ in an ionic liquid. Green Chemistry, 2019, 21, 4152-4158.	4.6	27
31	Methanol Promoted Palladiumâ€Catalyzed Amine Formylation with CO₂ and H₂ by the Formation of HCOOCH₃. ChemCatChem, 2018, 10, 5124-5127.	1.8	24
32	Stepwise degradation of hydroxyl compounds to aldehydes <i>via</i> successive Câ€"C bond cleavage. Chemical Communications, 2019, 55, 925-928.	2.2	22
33	Lowâ€Temperature Reverse Waterâ€"Gas Shift Process and Transformation of Renewable Carbon Resources to Valueâ€Added Chemicals. ChemSusChem, 2019, 12, 5149-5156.	3.6	21
34	Compressive Alginate Sponge Derived from Seaweed Biomass Resources for Methylene Blue Removal from Wastewater. Polymers, 2019, 11, 961.	2.0	21
35	Facile surfactant-free synthesis of monodisperse Ni particles via a simple solvothermal method and their superior catalytic effect on thermal decomposition of ammonium perchlorate. New Journal of Chemistry, 2011, 35, 1403.	1.4	19
36	Photocatalytic carbon dioxide reduction coupled with benzylamine oxidation over Zn-Bi₂WO₆ microflowers. Green Chemistry, 2021, 23, 2913-2917.	4.6	19

#	Article	IF	Citations
37	Polyethylene upcycling to fuels: Narrowing the carbon number distribution in n-alkanes by tandem hydropyrolysis/hydrocracking. Chemical Engineering Journal, 2022, 444, 136360.	6.6	19
38	Valorization of Technical Lignin for the Production of Desirable Resins with High Substitution Rate and Controllable Viscosity. ChemSusChem, 2020, 13, 4446-4454.	3.6	18
39	Comparison of acid-hydrolyzed and TEMPO-oxidized nanocellulose for reinforcing alginate fibers. BioResources, 2017, 12, 8180-8198.	0.5	17
40	Efficient and Product-Controlled Depolymerization of Lignin Oriented by Raney Ni Cooperated with Cs x H3 âˆ' x PW12O40. Bioenergy Research, 2017, 10, 1155-1162.	2.2	16
41	Selective Utilization of the Methoxy Group in Lignin to Produce Acetic Acid. Angewandte Chemie, 2017, 129, 15064-15068.	1.6	13
42	A facile sodium alginate-based approach to improve the mechanical properties of recycled fibers. Carbohydrate Polymers, 2017, 174, 610-616.	5.1	13
43	The production of 4-ethyltoluene <i>via</i> directional valorization of lignin. Green Chemistry, 2020, 22, 2191-2196.	4.6	13
44	Unveiling the Migration and Transformation Mechanism of Lignin in <i>Eucalyptus</i> During Deep Eutectic Solvent Pretreatment. ChemSusChem, 2022, 15, .	3.6	13
45	A scalable <i>waste-free</i> biorefinery inspires revenue from holistic lignocellulose valorization. Green Chemistry, 2021, 23, 6008-6019.	4.6	11
46	Valorization of Chinese hickory shell as novel sources for the efficient production of xylooligosaccharides. Biotechnology for Biofuels, 2021, 14, 226.	6.2	11
47	Assessment of structural characteristics of regenerated cellulolytic enzyme lignin based on a mild DMSO/[Emim]OAc dissolution system from triploid of Populus tomentosa Carr.. RSC Advances, 2017, 7, 3376-3387.	1.7	10
48	Insights into Structural Transformations of Lignin Toward High Reactivity During Choline Chloride/Formic Acid Deep Eutectic Solvents Pretreatment. Frontiers in Energy Research, 2020, 8, .	1.2	9
49	Selective aerobic oxidation of cyclic ethers to lactones over Au/CeO2 without any additives. Chemical Communications, 2020, 56, 2638-2641.	2.2	6
50	Organic amine mediated cleavage of C_{aromatic}â€"C_{Î±} bonds in lignin and its platform molecules. Chemical Science, 2021, 12, 15110-15115.	3.7	6
51	Selective Utilization of N-acetyl Groups in Chitin for Transamidation of Amines. Frontiers in Chemical Engineering, 2021, 2, .	1.3	3
52	Titelbild: Selective Utilization of the Methoxy Group in Lignin to Produce Acetic Acid (Angew. Chem.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.6	0
53	Polyethylene Upcycling to Fuels: Narrowing the Carbon Number Distribution in N-Alkanes by Tandem Hydropyrolysis/Hydrocracking. SSRN Electronic Journal, 0, , .	0.4	0