

Jian Shi

List of Publications by Year in Descending Order

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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.

79
papers

4,975
citations

38
h-index

70
g-index

88
ext. papers

5,588
ext. citations

8.3
avg, IF

5.64
L-index

#	Paper	IF	Citations
79	The multiscale solvation effect on the reactivity of EO-4 of lignin dimers in deep eutectic solvents. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 25699-25705	3.6	1
78	Controlling bacterial contamination during fuel ethanol fermentation using thermochemically depolymerized lignin bio-oils. <i>Green Chemistry</i> , 2021 , 23, 6477-6489	10	0
77	Biodegradable Cellulose Film Prepared From Banana Pseudo-Stem Using an Ionic Liquid for Mango Preservation. <i>Frontiers in Plant Science</i> , 2021 , 12, 625878	6.2	10
76	Fractionation, Characterization, and Valorization of Lignin Derived from Engineered Plants 2021 , 245-288		
75	Effects of water on the solvation and structure of lipase in deep eutectic solvents containing a protein destabilizer and stabilizer. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 23372-23379	3.6	0
74	Comparative Evaluation of Industrial Hemp Cultivars: Agronomical Practices, Feedstock Characterization, and Potential for Biofuels and Bioproducts. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 6200-6210	8.3	16
73	Natural deep eutectic solvent mediated extrusion for continuous high-solid pretreatment of lignocellulosic biomass. <i>Green Chemistry</i> , 2020 , 22, 6372-6383	10	27
72	Mechanistic Insight into Lignin Slow Pyrolysis by Linking Pyrolysis Chemistry and Carbon Material Properties. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 15843-15854	8.3	7
71	Antimicrobial Properties of Corn Stover Lignin Fractions Derived from Catalytic Transfer Hydrogenolysis in Supercritical Ethanol with a Ru/C Catalyst. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 18455-18467	8.3	3
70	Characterization and Enzyme Engineering of a Hyperthermophilic Laccase Toward Improving Its Activity in Ionic Liquid. <i>Frontiers in Energy Research</i> , 2020 , 8,	3.8	6
69	Effect of Substrate Characteristics on the Growth and Sporulation of Two Biocontrol Microorganisms during Solid State Cultivation. <i>Fermentation</i> , 2020 , 6, 69	4.7	1
68	Heterogeneous and Homogeneous Components in Gas-Phase Pyrolysis of Hydrolytic Lignin. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 12891-12901	8.3	1
67	Understanding Laccase-Ionic Liquid Interactions toward Biocatalytic Lignin Conversion in Aqueous Ionic Liquids. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 15928-15938	8.3	30
66	Sequential Extraction and Characterization of Lignin-Derived Compounds from Thermochemically Processed Biorefinery Lignins. <i>Energy & Fuels</i> , 2019 , 33, 4322-4330	4.1	11
65	Modulating Mechanical Properties of Collagen-Lignin Composites.. <i>ACS Applied Bio Materials</i> , 2019 , 2, 3562-3572	4.1	6
64	Biocatalysis in ionic liquids for lignin valorization: Opportunities and recent developments. <i>Biotechnology Advances</i> , 2019 , 37, 107418	17.8	22
63	Rapid microwave-assisted biomass delignification and lignin depolymerization in deep eutectic solvents. <i>Energy Conversion and Management</i> , 2019 , 196, 1080-1088	10.6	56

62	Hydrogels derived from lignocellulosic compounds: Evaluation of the compositional, structural, mechanical and antimicrobial properties. <i>Industrial Crops and Products</i> , 2019 , 128, 323-330	5.9	30
61	Understanding Lignin Fractionation and Characterization from Engineered Switchgrass Treated by an Aqueous Ionic Liquid. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 6612-6623	8.3	42
60	Characterization and Catalytic Transfer Hydrogenolysis of Deep Eutectic Solvent Extracted Sorghum Lignin to Phenolic Compounds. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 10408-10420	8.3	39
59	Linking lignin source with structural and electrochemical properties of lignin-derived carbon materials.. <i>RSC Advances</i> , 2018 , 8, 38721-38732	3.7	18
58	Fractionation and characterization of lignin streams from unique high-lignin content endocarp feedstocks. <i>Biotechnology for Biofuels</i> , 2018 , 11, 304	7.8	33
57	A Novel Platform for Biouprgrading of Lignin to Valuable Nutraceuticals and Pharmaceuticals 2018 ,		3
56	Principles and Development of Lignocellulosic Biomass Pretreatment for Biofuels. <i>Advances in Bioenergy</i> , 2017 , 1-68	3.9	32
55	Impact of Dilute Sulfuric Acid, Ammonium Hydroxide, and Ionic Liquid Pretreatments on the Fractionation and Characterization of Engineered Switchgrass. <i>Bioenergy Research</i> , 2017 , 10, 1079-1093	3.1	16
54	Industrial hemp as a potential bioenergy crop in comparison with kenaf, switchgrass and biomass sorghum. <i>Bioresource Technology</i> , 2017 , 244, 641-649	11	56
53	Efficient dehydration and recovery of ionic liquid after lignocellulosic processing using pervaporation. <i>Biotechnology for Biofuels</i> , 2017 , 10, 154	7.8	54
52	Dynamic changes of substrate reactivity and enzyme adsorption on partially hydrolyzed cellulose. <i>Biotechnology and Bioengineering</i> , 2017 , 114, 503-515	4.9	20
51	Catalytic Oxidation and Depolymerization of Lignin in Aqueous Ionic Liquid. <i>Frontiers in Energy Research</i> , 2017 , 5,	3.8	32
50	Impact of engineered lignin composition on biomass recalcitrance and ionic liquid pretreatment efficiency. <i>Green Chemistry</i> , 2016 , 18, 4884-4895	10	58
49	Transforming biomass conversion with ionic liquids: process intensification and the development of a high-gravity, one-pot process for the production of cellulosic ethanol. <i>Energy and Environmental Science</i> , 2016 , 9, 1042-1049	35.4	167
48	Impact of different ratios of feedstock to liquid anaerobic digestion effluent on the performance and microbiome of solid-state anaerobic digesters digesting corn stover. <i>Bioresource Technology</i> , 2016 , 200, 744-52	11	38
47	Densification and Pyrolysis of Lignocellulosic Biomass for Renewable Energy. <i>Current Organic Chemistry</i> , 2016 , 20, 1-1	1.7	4
46	CO2 enabled process integration for the production of cellulosic ethanol using bionic liquids. <i>Energy and Environmental Science</i> , 2016 , 9, 2822-2834	35.4	52
45	Impact of Pretreatment Technologies on Saccharification and Isopentenol Fermentation of Mixed Lignocellulosic Feedstocks. <i>Bioenergy Research</i> , 2015 , 8, 1004-1013	3.1	34

44	Theoretical Insights into the Role of Water in the Dissolution of Cellulose Using IL/Water Mixed Solvent Systems. <i>Journal of Physical Chemistry B</i> , 2015 , 119, 14339-49	3-4	38
43	How Alkyl Chain Length of Alcohols Affects Lignin Fractionation and Ionic Liquid Recycle During Lignocellulose Pretreatment. <i>Bioenergy Research</i> , 2015 , 8, 973-981	3-1	13
42	Design of low-cost ionic liquids for lignocellulosic biomass pretreatment. <i>Green Chemistry</i> , 2015 , 17, 1728-1734	3-1	34-1
41	CHAPTER 3: Ionic Liquid Pretreatment of Lignocellulosic Biomass for Biofuels and Chemicals. <i>RSC Green Chemistry</i> , 2015 , 65-94	0.9	13
40	Effects of microbial and non-microbial factors of liquid anaerobic digestion effluent as inoculum on solid-state anaerobic digestion of corn stover. <i>Bioresource Technology</i> , 2014 , 157, 188-96	11	62
39	Rapid kinetic characterization of glycosyl hydrolases based on oxime derivatization and nanostructure-initiator mass spectrometry (NIMS). <i>ACS Chemical Biology</i> , 2014 , 9, 1470-9	4-9	30
38	Efficient biomass pretreatment using ionic liquids derived from lignin and hemicellulose. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, E3587-95	11.5	239
37	Understanding the role of water during ionic liquid pretreatment of lignocellulose: co-solvent or anti-solvent?. <i>Green Chemistry</i> , 2014 , 16, 3830-3840	10	110
36	Understanding pretreatment efficacy of four cholinium and imidazolium ionic liquids by chemistry and computation. <i>Green Chemistry</i> , 2014 , 16, 2546-2557	10	117
35	Interactions between fungal growth, substrate utilization, and enzyme production during solid substrate cultivation of <i>Phanerochaete chrysosporium</i> on cotton stalks. <i>Bioprocess and Biosystems Engineering</i> , 2014 , 37, 2463-73	3-7	10
34	Understanding cost drivers and economic potential of two variants of ionic liquid pretreatment for cellulosic biofuel production. <i>Biotechnology for Biofuels</i> , 2014 , 7, 86	7.8	101
33	One-pot ionic liquid pretreatment and saccharification of switchgrass. <i>Green Chemistry</i> , 2013 , 15, 2579	10	154
32	Sophocarpine alleviates hepatocyte steatosis through activating AMPK signaling pathway. <i>Toxicology in Vitro</i> , 2013 , 27, 1065-71	3.6	26
31	Comparison of different liquid anaerobic digestion effluents as inocula and nitrogen sources for solid-state batch anaerobic digestion of corn stover. <i>Waste Management</i> , 2013 , 33, 26-32	8.6	90
30	Reactor performance and microbial community dynamics during solid-state anaerobic digestion of corn stover at mesophilic and thermophilic conditions. <i>Bioresource Technology</i> , 2013 , 136, 574-81	11	108
29	Impact of mixed feedstocks and feedstock densification on ionic liquid pretreatment efficiency. <i>Biofuels</i> , 2013 , 4, 63-72	2	69
28	Comparison of alkaline- and fungi-assisted wet-storage of corn stover. <i>Bioresource Technology</i> , 2012 , 109, 98-104	11	35
27	Production of renewable aromatic compounds by catalytic fast pyrolysis of lignocellulosic biomass with bifunctional Ga/ZSM-5 catalysts. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 1387-90	16.4	288

26	Methane production from solid-state anaerobic digestion of lignocellulosic biomass. <i>Biomass and Bioenergy</i> , 2012 , 46, 125-132	5.3	181
25	Comparison of solid-state to liquid anaerobic digestion of lignocellulosic feedstocks for biogas production. <i>Bioresource Technology</i> , 2012 , 124, 379-86	11	228
24	Enzymatic Digestibility of Corn Stover Fractions in Response to Fungal Pretreatment. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 7153-7159	3.9	12
23	Interactions between fungal growth, substrate utilization and enzyme production during shallow stationary cultivation of <i>Phanerochaete chrysosporium</i> on cotton stalks. <i>Enzyme and Microbial Technology</i> , 2012 , 51, 1-8	3.8	13
22	Production of Renewable Aromatic Compounds by Catalytic Fast Pyrolysis of Lignocellulosic Biomass with Bifunctional Ga/ZSM-5 Catalysts. <i>Angewandte Chemie</i> , 2012 , 124, 1416-1419	3.6	124
21	Renewable gasoline from aqueous phase hydrodeoxygenation of aqueous sugar solutions prepared by hydrolysis of maple wood. <i>Green Chemistry</i> , 2011 , 13, 91-101	10	105
20	Investigation of enzyme formulation on pretreated switchgrass. <i>Bioresource Technology</i> , 2011 , 102, 11072-9	11	21
19	Effects of enzyme loading and β -glucosidase supplementation on enzymatic hydrolysis of switchgrass processed by leading pretreatment technologies. <i>Bioresource Technology</i> , 2011 , 102, 11115-20	11	41
18	Surface and ultrastructural characterization of raw and pretreated switchgrass. <i>Bioresource Technology</i> , 2011 , 102, 11097-104	11	55
17	Comparative material balances around pretreatment technologies for the conversion of switchgrass to soluble sugars. <i>Bioresource Technology</i> , 2011 , 102, 11063-71	11	107
16	Application of cellulase and hemicellulase to pure xylan, pure cellulose, and switchgrass solids from leading pretreatments. <i>Bioresource Technology</i> , 2011 , 102, 11080-8	11	50
15	Comparative study on enzymatic digestibility of switchgrass varieties and harvests processed by leading pretreatment technologies. <i>Bioresource Technology</i> , 2011 , 102, 11089-96	11	82
14	Comparative data on effects of leading pretreatments and enzyme loadings and formulations on sugar yields from different switchgrass sources. <i>Bioresource Technology</i> , 2011 , 102, 11052-62	11	114
13	Enhancing the solid-state anaerobic digestion of fallen leaves through simultaneous alkaline treatment. <i>Bioresource Technology</i> , 2011 , 102, 8828-34	11	141
12	Sugar yields from dilute sulfuric acid and sulfur dioxide pretreatments and subsequent enzymatic hydrolysis of switchgrass. <i>Bioresource Technology</i> , 2011 , 102, 8930-8	11	61
11	Process and techno-economic analysis of leading pretreatment technologies for lignocellulosic ethanol production using switchgrass. <i>Bioresource Technology</i> , 2011 , 102, 11105-14	11	251
10	Solid-state anaerobic digestion of spent wheat straw from horse stall. <i>Bioresource Technology</i> , 2011 , 102, 9432-7	11	79
9	Comparison of microwaves to fluidized sand baths for heating tubular reactors for hydrothermal and dilute acid batch pretreatment of corn stover. <i>Bioresource Technology</i> , 2011 , 102, 5952-61	11	49

8	Effect of microbial pretreatment on enzymatic hydrolysis and fermentation of cotton stalks for ethanol production. <i>Biomass and Bioenergy</i> , 2009 , 33, 88-96	5.3	195
7	Microbial pretreatment of cotton stalks by submerged cultivation of <i>Phanerochaete chrysosporium</i> . <i>Bioresource Technology</i> , 2009 , 100, 4388-95	11	39
6	Autohydrolysis pretreatment of coastal Bermuda grass for increased enzyme hydrolysis. <i>Bioresource Technology</i> , 2009 , 100, 6434-41	11	84
5	Microbial pretreatment of cotton stalks by solid state cultivation of <i>Phanerochaete chrysosporium</i> . <i>Bioresource Technology</i> , 2008 , 99, 6556-64	11	168
4	Challenges in Quantification of Lignolytic Enzymes from <i>Phanerochaete chrysosporium</i> Cultivation for Pretreatment of Cotton Stalks. <i>Transactions of the ASABE</i> , 2007 , 50, 2347-2354	0.9	1
3	Biofuels from cellulosic biomass via aqueous processing 336-348		
2	Molecular dynamics simulations of heterogeneous hydrogen bond environment in hydrophobic deep eutectic solvents. <i>AIChE Journal</i> , e17382	3.6	2
1	Structure and hydrogen bonds of hydrophobic deep eutectic solvent-aqueous liquid-liquid interfaces. <i>AIChE Journal</i> , e17427	3.6	2