Xuliang Lin

List of Publications by Year
in descending order

96 papers	3,831 citations	101384 36 h-index	138251 58 g-index
99 all docs	99 docs citations	99 times ranked	3159 citing authors

#	Article	IF	Citations
1	pHâ€Induced Lignin Surface Modification to Reduce Nonspecific Cellulase Binding and Enhance Enzymatic Saccharification of Lignocelluloses. ChemSusChem, 2013, 6, 919-927.	3.6	219
2	Properties of sodium lignosulfonate as dispersant of coal water slurry. Energy Conversion and Management, 2007, 48, 2433-2438.	4.4	166
3	Enzymatic Saccharification of Lignocelluloses Should be Conducted at Elevated pH 5.2â€"6.2. Bioenergy Research, 2013, 6, 476-485.	2.2	146
4	An uncondensed lignin depolymerized in the solid state and isolated from lignocellulosic biomass: a mechanistic study. Green Chemistry, 2018, 20, 4224-4235.	4.6	132
5	Rational design of 3D/2D In2O3 nanocube/ZnIn2S4 nanosheet heterojunction photocatalyst with large-area â€œhigh-speed channelsâ€•for photocatalytic oxidation of 2,4-dichlorophenol under visible light. Journal of Hazardous Materials, 2020, 382, 121098.	6.5	124
6	Lignosulfonate To Enhance Enzymatic Saccharification of Lignocelluloses: Role of Molecular Weight and Substrate Lignin. Industrial & Engineering Chemistry Research, 2013, 52, 8464-8470.	1.8	118
7	Facile fabrication and characterization of highly stretchable lignin-based hydroxyethyl cellulose self-healing hydrogel. Carbohydrate Polymers, 2019, 223, 115080.	5.1	109
8	High-performance dispersant of coalâ€"water slurry synthesized from wheat straw alkali lignin. Fuel Processing Technology, 2007, 88, 375-382.	3.7	104
9	Reducing non-productive adsorption of cellulase and enhancing enzymatic hydrolysis of lignocelluloses by noncovalent modification of lignin with lignosulfonate. Bioresource Technology, 2013, 146, 478-484.	4.8	104
10	Maleic acid as a dicarboxylic acid hydrotrope for sustainable fractionation of wood at atmospheric pressure and â‰100 Â°C: mode and utility of lignin esterification. Green Chemistry, 2020, 22, 1605-1617.	4.6	103
11	Corrosion and Scale Inhibition Properties of Sodium Lignosulfonate and Its Potential Application in Recirculating Cooling Water System. Industrial & Engineering Chemistry Research, 2006, 45, 5716-5721.	1.8	98
12	Synthesis and characterization of biomass lignin-based PVA super-absorbent hydrogel. International Journal of Biological Macromolecules, 2019, 140, 538-545.	3.6	91
13	Synthesis, Structure, and Dispersion Property of a Novel Lignin-Based Polyoxyethylene Ether from Kraft Lignin and Poly(ethylene glycol). ACS Sustainable Chemistry and Engineering, 2014, 2, 1902-1909.	3.2	80
14	Preparation of Lignin-Based Superplasticizer by Graft Sulfonation and Investigation of the Dispersive Performance and Mechanism in a Cementitious System. Industrial & Engineering Chemistry Research, 2013, 52, 16101-16109.	1.8	74
15	Nonionic surfactants enhanced enzymatic hydrolysis of cellulose by reducing cellulase deactivation caused by shear force and air-liquid interface. Bioresource Technology, 2018, 249, 1-8.	4.8	71
16	Highly Efficient Inverted Perovskite Solar Cells With Sulfonated Lignin Doped PEDOT as Hole Extract Layer. ACS Applied Materials & Interfaces, 2016, 8, 12377-12383.	4.0	69
17	Evaluation of treated black liquor used as dispersant of concentrated coalâ€"water slurry. Fuel, 2010, 89, 716-723.	3.4	68
18	Facile and Green Preparation of High UV-Blocking Lignin/Titanium Dioxide Nanocomposites for Developing Natural Sunscreens. Industrial & Engineering Chemistry Research, 2018, 57, 15740-15748.	1.8	67

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19	Modulation of BrÃ¸nsted and Lewis Acid Centers for Ni<i>_x</i>Co_{3âˆ’}<i>_x</i>O₄ Spinel Catalysts: Towards Efficient Catalytic Conversion of Lignin. Advanced Functional Materials, 2022, 32, .	7.8	67
20	Biomimetic high performance artificial muscle built on sacrificial coordination network and mechanical training process. Nature Communications, 2021, 12, 2916.	5.8	64
21	Facile preparation of biomass lignin-based hydroxyethyl cellulose super-absorbent hydrogel for dye pollutant removal. International Journal of Biological Macromolecules, 2019, 137, 939-947.	3.6	61
22	Understanding the effects of lignosulfonate on enzymatic saccharification of pure cellulose. Cellulose, 2014, 21, 1351-1359.	2.4	60
23	Properties of Different Molecular Weight Sodium Lignosulfonate Fractions as Dispersant of Coalâ€Water Slurry. Journal of Dispersion Science and Technology, 2006, 27, 851-856.	1.3	59
24	Direct Construction of Catechol Lignin for Engineering Longâ€Acting Conductive, Adhesive, and UVâ€Blocking Hydrogel Bioelectronics. Small Methods, 2021, 5, e2001311.	4.6	59
25	Enhancing the Broad-Spectrum Adsorption of Lignin through Methoxyl Activation, Grafting Modification, and Reverse Self-Assembly. ACS Sustainable Chemistry and Engineering, 2019, 7, 15966-15973.	3.2	54
26	Lignin-based polyoxyethylene ether enhanced enzymatic hydrolysis of lignocelluloses by dispersing cellulase aggregates. Bioresource Technology, 2015, 185, 165-170.	4.8	53
27	Selective Cleavage of the Aryl Ether Bonds in Lignin for Depolymerization by Acidic Lithium Bromide Molten Salt Hydrate under Mild Conditions. Journal of Agricultural and Food Chemistry, 2016, 64, 8379-8387.	2.4	50
28	Preparation of Lignin/Sodium Dodecyl Sulfate Composite Nanoparticles and Their Application in Pickering Emulsion Template-Based Microencapsulation. Journal of Agricultural and Food Chemistry, 2017, 65, 11011-11019.	2.4	49
29	Using recyclable pH-responsive lignin amphoteric surfactant to enhance the enzymatic hydrolysis of lignocelluloses. Green Chemistry, 2017, 19, 5479-5487.	4.6	48
30	Effect of lignin-based amphiphilic polymers on the cellulase adsorption and enzymatic hydrolysis kinetics of cellulose. Carbohydrate Polymers, 2019, 207, 52-58.	5.1	48
31	Using polyvinylpyrrolidone to enhance the enzymatic hydrolysis of lignocelluloses by reducing the cellulase non-productive adsorption on lignin. Bioresource Technology, 2017, 227, 74-81.	4.8	45
32	The phase behavior of n-ethylpyridinium tetrafluoroborate and sodium-based salts ATPS and its application in 2-chlorophenol extraction. Chinese Journal of Chemical Engineering, 2021, 33, 76-82.	1.7	45
33	Light Color Dihydroxybenzophenone Grafted Lignin with High UVA/UVB Absorbance Ratio for Efficient and Safe Natural Sunscreen. Industrial & Engineering Chemistry Research, 2020, 59, 17057-17068.	1.8	43
34	Recovering cellulase and increasing glucose yield during lignocellulosic hydrolysis using lignin-MPEG with a sensitive pH response. Green Chemistry, 2019, 21, 1141-1151.	4.6	42
35	Improving enzymatic hydrolysis of lignocellulosic substrates with pre-hydrolysates by adding cetyltrimethylammonium bromide to neutralize lignosulfonate. Bioresource Technology, 2016, 216, 968-975.	4.8	40
36	Palladium-Catalyzed Highly Regioselective Hydrocarboxylation of Alkynes with Carbon Dioxide. ACS Catalysis, 2020, 10, 7968-7978.	5.5	36

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37	Mo-Doped/Ni-supported ZnIn₂S₄-wrapped NiMoO₄ S-scheme heterojunction photocatalytic reforming of lignin into hydrogen. Green Chemistry, 2022, 24, 2027-2035.	4.6	36
38	<i>In situ</i> coupling of ligninâ€derived carbonâ€encapsulated CoFeâ€Co_{<i>x</i>}N heterojunction for oxygen evolution reaction. AIChE Journal, 2022, 68, .	1.8	34
39	Polymerization reactivity of sulfomethylated alkali lignin modified with horseradish peroxidase. Bioresource Technology, 2014, 155, 418-421.	4.8	31
40	Synthesis of triblock copolymer polydopamine-polyacrylic-polyoxyethylene with excellent performance as a binder for silicon anode lithium-ion batteries. RSC Advances, 2018, 8, 4604-4609.	1.7	31
41	High voltage, solvent-free solid polymer electrolyte based on a star-comb PDLLAâ€“PEG copolymer for lithium ion batteries. RSC Advances, 2018, 8, 6373-6380.	1.7	30
42	Recycling Cellulase by a pH-Responsive Lignin-Based Carrier through Electrostatic Interaction. ACS Sustainable Chemistry and Engineering, 2018, 6, 10679-10686.	3.2	28
43	Effect of the molecular structure of lignin-based polyoxyethylene ether on enzymatic hydrolysis efficiency and kinetics of lignocelluloses. Bioresource Technology, 2015, 193, 266-273.	4.8	27
44	Enhancement of lignosulfonate-based polyoxyethylene ether on enzymatic hydrolysis of lignocelluloses. Industrial Crops and Products, 2016, 80, 86-92.	2.5	26
45	Synthesis of Quaternized Lignin and Its Clay-Tolerance Properties in Montmorillonite-Containing Cement Paste. ACS Sustainable Chemistry and Engineering, 2017, 5, 7743-7750.	3.2	26
46	â€œNano-lymphaticâ€•photocatalytic water-splitting for relieving tumor interstitial fluid pressure and achieving hydrodynamic therapy. Materials Horizons, 2020, 7, 3266-3274.	6.4	26
47	Enhancement and Mechanism of a Lignin Amphoteric Surfactant on the Production of Cellulosic Ethanol from a High-Solid Corncob Residue. Journal of Agricultural and Food Chemistry, 2019, 67, 6248-6256.	2.4	25
48	High internal phase emulsions stabilized with carboxymethylated lignin for encapsulation and protection of environmental sensitive natural extract. International Journal of Biological Macromolecules, 2020, 158, 430-442.	3.6	25
49	Preparation and interaction mechanism of Nano disperse dye using hydroxypropyl sulfonated lignin. International Journal of Biological Macromolecules, 2020, 152, 280-287.	3.6	24
50	Visible Light-Driven Reforming of Lignocellulose into H₂ by Intrinsic Monolayer Carbon Nitride. ACS Applied Materials & Interfaces, 2021, 13, 44243-44253.	4.0	24
51	Facile synthesis of easily separated and reusable silver nanoparticles/aminated alkaline lignin composite and its catalytic ability. Journal of Colloid and Interface Science, 2021, 587, 334-346.	5.0	23
52	Long-Acting Ultraviolet-Blocking Mechanism of Lignin: Generation and Transformation of Semiquinone Radicals. ACS Sustainable Chemistry and Engineering, 2022, 10, 5421-5429.	3.2	22
53	Preparation of Light-Colored Lignosulfonate Sunscreen Microcapsules with Strengthened UV-Blocking and Adhesion Performance. ACS Sustainable Chemistry and Engineering, 2022, 10, 9381-9388.	3.2	22
54	Effect of Urea on the Enzymatic Hydrolysis of Lignocellulosic Substrate and Its Mechanism. Bioenergy Research, 2018, 11, 456-465.	2.2	21

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55	Effect of the isoelectric point of pH-responsive lignin-based amphoteric surfactant on the enzymatic hydrolysis of lignocellulose. Bioresource Technology, 2019, 283, 112-119.	4.8	21
56	Preparation and application performance of lignin-polyurea composite microcapsule with controlled release of avermectin. Colloid and Polymer Science, 2020, 298, 1001-1012.	1.0	21
57	Influence of modified lignosulfonate GCL4-1 with different molecular weight on the stability of dimethomorph water based suspension. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 441, 664-668.	2.3	20
58	Fabrication of High-Concentration Aqueous Graphene Suspensions Dispersed by Sodium Lignosulfonate and Its Mechanism. Journal of Physical Chemistry C, 2015, 119, 23221-23230.	1.5	20
59	The temperature influence on the phase behavior of ionic liquid based aqueous two-phase systems and its extraction efficiency of 2-chlorophenol. Fluid Phase Equilibria, 2020, 506, 112394.	1.4	20
60	Effect of cationic surfactant cetyltrimethylammonium bromide on the enzymatic hydrolysis of cellulose. Cellulose, 2017, 24, 61-68.	2.4	19
61	Modification of sulfomethylated alkali lignin catalyzed by horseradish peroxidase. RSC Advances, 2014, 4, 53855-53863.	1.7	18
62	Preparation of a Low Reducing Effect Sulfonated Alkali Lignin and Application as Dye Dispersant. Polymers, 2018, 10, 982.	2.0	18
63	Rheological Behavior Investigation of Concentrated Coal-Water Suspension. Journal of Dispersion Science and Technology, 2010, 31, 838-843.	1.3	16
64	Improving Rheology and Enzymatic Hydrolysis of High-Solid Corncob Slurries by Adding Lignosulfonate and Long-Chain Fatty Alcohols. Journal of Agricultural and Food Chemistry, 2014, 62, 8430-8436.	2.4	15
65	Enhancing enzymatic hydrolysis of xylan by adding sodium lignosulfonate and long-chain fatty alcohols. Bioresource Technology, 2016, 200, 48-54.	4.8	15
66	Lignin â€" a promising biomass resource. Tappi Journal, 2018, 17, 125-141.	0.2	15
67	Pretreatment of Miscanthus by NaOH/Urea Solution at Room Temperature for Enhancing Enzymatic Hydrolysis. Bioenergy Research, 2016, 9, 335-343.	2.2	14
68	Using temperature-responsive zwitterionic surfactant to enhance the enzymatic hydrolysis of lignocelluloses and recover cellulase by cooling. Bioresource Technology, 2017, 243, 1141-1148.	4.8	14
69	Effect of sodium dodecyl sulfate and cetyltrimethylammonium bromide catanionic surfactant on the enzymatic hydrolysis of Avicel and corn stover. Cellulose, 2017, 24, 669-676.	2.4	13
70	Understanding the Effect of the Complex of Lignosulfonate and Cetyltrimethylammonium Bromide on the Enzymatic Digestibility of Cellulose. Energy & Fuels, 2017, 31, 672-678.	2.5	13
71	Preparation of formyl cellulose and its enhancement effect on the mechanical and barrier properties of polylactic acid films. International Journal of Biological Macromolecules, 2021, 172, 82-92.	3.6	13
72	Fabrication and properties of low crystallinity nanofibrillar cellulose and a nanofibrillar celluloseâ€"graphene oxide composite. RSC Advances, 2015, 5, 67568-67573.	1.7	12

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73	Highly Dispersible Cellulose Nanofibrils Produced via Mechanical Pretreatment and TEMPO-mediated Oxidation. Fibers and Polymers, 2018, 19, 2237-2244.	1.1	11
74	Improved enzymatic hydrolysis of hardwood and cellulase stability by biomass kraft lignin-based polyoxyethylene ether. International Journal of Biological Macromolecules, 2019, 136, 540-546.	3.6	11
75	Enhancement of Recyclable pH-Responsive Lignin-Grafted Phosphobetaine on Enzymatic Hydrolysis of Lignocelluloses. ACS Sustainable Chemistry and Engineering, 2019, 7, 7926-7931.	3.2	11
76	Effects of sacrificial coordination bonds on the mechanical performance of lignin-based thermoplastic elastomer composites. International Journal of Biological Macromolecules, 2021, 183, 1450-1458.	3.6	11
77	MoNi4â€“NiO heterojunction encapsulated in lignin-derived carbon for efficient hydrogen evolution reaction. Green Energy and Environment, 2023, 8, 1728-1736.	4.7	11
78	Thermo-Responsive Behavior of Enzymatic Hydrolysis Lignin in the Ethanol/Water Mixed Solvent and Its Application in the Controlled Release of Pesticides. ACS Sustainable Chemistry and Engineering, 2021, 9, 15634-15640.	3.2	10
79	Sodium Preâ€Intercalated Carbon/V₂O₅ Constructed by Sustainable Sodium Lignosulfonate for Stable Cathodes in Zincâ€Ion Batteries: A Comprehensive Study. ChemSusChem, 2022, 15, .	3.6	10
80	Slow relaxation mode of sodium lignosulfonate in saline solutions. Holzforschung, 2015, 69, 17-23.	0.9	9
81	Using highly recyclable sodium caseinate to enhance lignocellulosic hydrolysis and cellulase recovery. Bioresource Technology, 2020, 304, 122974.	4.8	9
82	Effects of Co doping sites on the electrochemical performance of LiNi0.5Mn1.5O4 as a cathode material. Ionics, 2020, 26, 3777-3783.	1.2	9
83	Enhancing enzymatic hydrolysis of crystalline cellulose and lignocellulose by adding long-chain fatty alcohols. Cellulose, 2014, 21, 3361-3369.	2.4	8
84	Tracing cellulase components in hydrolyzate during the enzymatic hydrolysis of corncob residue and its analysis. Bioresource Technology Reports, 2018, 4, 137-144.	1.5	8
85	Preparation of high molecular weight pH-responsive lignin-polyethylene glycol (L-PEG) and its application in enzymatic saccharification of lignocelluloses. Cellulose, 2020, 27, 755-767.	2.4	8
86	The synthesis of a UCST-type zwitterionic polymer for the efficient recycling of cellulase at room temperature. Green Chemistry, 2021, 23, 2738-2746.	4.6	8
87	Sodium Benzenesulfonate-Assisted Preparation of Lignosulfonate-Based Spherical Micelles: Insights from Mesoscopic Simulations. ACS Sustainable Chemistry and Engineering, 2022, 10, 2262-2270.	3.2	8
88	Synergetic Effect of Perfluorooctanoic Acid on the Preparation of Poly(3,4â€ethylenedioxythiophene): Lignosulfonate Aqueous Dispersions with High Film Conductivity. ChemistrySelect, 2019, 4, 11406-11412.	0.7	7
89	A Simple and Rapid Method to Determine Sulfonation Degree of Lignosulfonates. Bioenergy Research, 2019, 12, 260-266.	2.2	7
90	Aqueous Phase Catalytic Conversion of Ethanol to Higher Alcohols over NiSn Bimetallic Catalysts Encapsulated in Nitrogen-Doped Biorefinery Lignin-Based Carbon. Industrial & Engineering Chemistry Research, 2021, 60, 17959-17969.	1.8	7

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91	Lignin modified <scp>PBAT</scp> composites with enhanced strength based on interfacial dynamic bonds. Journal of Applied Polymer Science, 2022, 139, .	1.3	7
92	Design of a Salt-Free Aqueous Two-Phase System Containing Butanol, <i>n</i>-Butylpyridine Dicyanamide, and Water: Equilibrium Data and Correlation. Journal of Chemical & Engineering Data, 2019, 64, 3547-3555.	1.0	3
93	Using a linear pH-responsive zwitterionic copolymer to recover cellulases in enzymatic hydrolysate and to enhance the enzymatic hydrolysis of lignocellulose. Cellulose, 2019, 26, 6725-6738.	2.4	3
94	Green chemical engineering in China. Reviews in Chemical Engineering, 2019, 35, 995-1077.	2.3	3
95	Effect of cellulase on the UCST behavior of sulfobetaine zwitterionic surfactants and the cellulase recovery mechanism. Sustainable Energy and Fuels, 2021, 5, 750-757.	2.5	3
96	Flexible Self-Supporting 3D Electrode Based on 3D Graphene-PPy@Fe-MnCo₂O₄ Nanostructure Arrays toward High-Performance Wearable Supercapacitors. ACS Applied Energy Materials, 2022, 5, 5937-5946.	2.5	3