

Tong-Qi Yuan

List of Publications by Year in descending order

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104
papers

7,178
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47006

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times ranked

5922
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterization of Lignin Structures and Lignin–Carbohydrate Complex (LCC) Linkages by Quantitative ¹³ C and 2D HSQC NMR Spectroscopy. <i>Journal of Agricultural and Food Chemistry</i> , 2011, 59, 10604-10614.	5.2	483
2	Facile fractionation of lignocelluloses by biomass-derived deep eutectic solvent (DES) pretreatment for cellulose enzymatic hydrolysis and lignin valorization. <i>Green Chemistry</i> , 2019, 21, 275-283.	9.0	445
3	Understanding the chemical transformations of lignin during ionic liquid pretreatment. <i>Green Chemistry</i> , 2014, 16, 181-190.	9.0	260
4	Manufacture and application of lignin-based carbon fibers (LCFs) and lignin-based carbon nanofibers (LCNFs). <i>Green Chemistry</i> , 2017, 19, 1794-1827.	9.0	216
5	Progress in microwave pyrolysis conversion of agricultural waste to value-added biofuels: A batch to continuous approach. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 135, 110148.	16.4	206
6	Understanding the chemical and structural transformations of lignin macromolecule during torrefaction. <i>Applied Energy</i> , 2014, 121, 1-9.	10.1	190
7	A lignosulfonate-modified graphene hydrogel with ultrahigh adsorption capacity for Pb(II) removal. <i>Journal of Materials Chemistry A</i> , 2016, 4, 11888-11896.	10.3	169
8	Structural elucidation of whole lignin from Eucalyptus based on preswelling and enzymatic hydrolysis. <i>Green Chemistry</i> , 2015, 17, 1589-1596.	9.0	157
9	Structure–function relationships of deep eutectic solvents for lignin extraction and chemical transformation. <i>Green Chemistry</i> , 2020, 22, 7219-7232.	9.0	151
10	The Chinese pine genome and methylome unveil key features of conifer evolution. <i>Cell</i> , 2022, 185, 204-217.e14.	28.9	151
11	Green and Facile Preparation of Regular Lignin Nanoparticles with High Yield and Their Natural Broad-Spectrum Sunscreens. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 2658-2666.	6.7	148
12	Fractionation and physico-chemical analysis of degraded lignins from the black liquor of Eucalyptus pellita KP-AQ pulping. <i>Polymer Degradation and Stability</i> , 2009, 94, 1142-1150.	5.8	132
13	Structural and Morphological Transformations of Lignin Macromolecules during Bio-Based Deep Eutectic Solvent (DES) Pretreatment. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 2130-2137.	6.7	131
14	In-depth interpretation of the structural changes of lignin and formation of diketones during acidic deep eutectic solvent pretreatment. <i>Green Chemistry</i> , 2020, 22, 1851-1858.	9.0	123
15	Structural Characteristics of Lignin Macromolecules from Different Eucalyptus Species. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 11618-11627.	6.7	122
16	Role of lignin in a biorefinery: separation characterization and valorization. <i>Journal of Chemical Technology and Biotechnology</i> , 2013, 88, 346-352.	3.2	120
17	Lewis Acid-Facilitated Deep Eutectic Solvent (DES) Pretreatment for Producing High-Purity and Antioxidative Lignin. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 1050-1057.	6.7	117
18	Recent progress on biomass-derived ecomaterials toward advanced rechargeable lithium batteries. <i>EcoMat</i> , 2020, 2, e12019.	11.9	117

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19	Advanced and versatile lignin-derived biodegradable composite film materials toward a sustainable world. <i>Green Chemistry</i> , 2021, 23, 3790-3817.	9.0	114
20	Economically Competitive Biodegradable PBAT/Lignin Composites: Effect of Lignin Methylation and Compatibilizer. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 5338-5346.	6.7	113
21	Structural and physico-chemical characterization of hemicelluloses from ultrasound-assisted extractions of partially delignified fast-growing poplar wood through organic solvent and alkaline solutions. <i>Biotechnology Advances</i> , 2010, 28, 583-593.	11.7	112
22	Structural Elucidation of Lignin Polymers of <i>Eucalyptus</i> Chips during Organosolv Pretreatment and Extended Delignification. <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 11067-11075.	5.2	109
23	Structural Characterization of Lignin from Triploid of <i>Populus tomentosa</i> Carr.. <i>Journal of Agricultural and Food Chemistry</i> , 2011, 59, 6605-6615.	5.2	108
24	Electrolyte Regulation towards Stable Lithium-Metal Anodes in Lithium-Sulfur Batteries with Sulfurized Polyacrylonitrile Cathodes. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 10732-10745.	13.8	108
25	Characterization and phenolation of biorefinery technical lignins for lignin-phenol-formaldehyde resin adhesive synthesis. <i>RSC Advances</i> , 2014, 4, 57996-58004.	3.6	103
26	Effect of ionic liquid/organic solvent pretreatment on the enzymatic hydrolysis of corncob for bioethanol production. Part 1: Structural characterization of the lignins. <i>Industrial Crops and Products</i> , 2013, 43, 570-577.	5.2	97
27	Fractionation of bamboo culms by autohydrolysis, organosolv delignification and extended delignification: Understanding the fundamental chemistry of the lignin during the integrated process. <i>Bioresource Technology</i> , 2013, 150, 278-286.	9.6	95
28	Plasticized hemicelluloses/chitosan-based edible films reinforced by cellulose nanofiber with enhanced mechanical properties. <i>Carbohydrate Polymers</i> , 2019, 224, 115164.	10.2	93
29	In situ regulated solid electrolyte interphase via reactive separators for highly efficient lithium metal batteries. <i>Energy Storage Materials</i> , 2020, 30, 27-33.	18.0	90
30	A Mixed Ether Electrolyte for Lithium Metal Anode Protection in Working Lithium-Sulfur Batteries. <i>Energy and Environmental Materials</i> , 2020, 3, 160-165.	12.8	85
31	Structure-property relationships for technical lignins for the production of lignin-phenol-formaldehyde resins. <i>Industrial Crops and Products</i> , 2017, 108, 316-326.	5.2	84
32	Electrolyte Regulation towards Stable Lithium-Metal Anodes in Lithium-Sulfur Batteries with Sulfurized Polyacrylonitrile Cathodes. <i>Angewandte Chemie</i> , 2020, 132, 10821-10834.	2.0	80
33	Microwave-assisted deep eutectic solvents (DES) pretreatment of control and transgenic poplars for boosting the lignin valorization and cellulose bioconversion. <i>Industrial Crops and Products</i> , 2021, 164, 113415.	5.2	79
34	Effect of compression combined with steam treatment on the porosity, chemical composition and cellulose crystalline structure of wood cell walls. <i>Carbohydrate Polymers</i> , 2017, 155, 163-172.	10.2	74
35	Lignin-phenol-formaldehyde resin adhesives prepared with biorefinery technical lignins. <i>Journal of Applied Polymer Science</i> , 2015, 132, .	2.6	72
36	Redox mediator assists electron transfer in lithium-sulfur batteries with sulfurized polyacrylonitrile cathodes. <i>EcoMat</i> , 2021, 3, e12066.	11.9	69

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37	Heat Treatment of Industrial Alkaline Lignin and its Potential Application as an Adhesive for Green Woodâ€“Lignin Composites. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 7269-7277.	6.7	63
38	Downstream Processing Strategies for Ligninâ€“First Biorefinery. <i>ChemSusChem</i> , 2020, 13, 5199-5212.	6.8	62
39	Tunable, UV-shielding and biodegradable composites based on well-characterized lignins and poly(butylene adipate- <i>co</i> -terephthalate). <i>Green Chemistry</i> , 2020, 22, 8623-8632.	9.0	59
40	Structural Variations of Lignin Macromolecules from Early Growth Stages of Poplar Cell Walls. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 1813-1822.	6.7	56
41	Structural variations of lignin macromolecule from different growth years of Triploid of <i>Populus tomentosa</i> Carr.. <i>International Journal of Biological Macromolecules</i> , 2017, 101, 747-757.	7.5	54
42	Ultrastructural change in lignocellulosic biomass during hydrothermal pretreatment. <i>Bioresource Technology</i> , 2021, 341, 125807.	9.6	54
43	Structural Variation of Lignin and Ligninâ€“Carbohydrate Complex in <i>Eucalyptus grandis</i> & E. <i>urophylla</i> during Its Growth Process. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 1113-1122.	6.7	53
44	Unraveling the structural characteristics of lignin in hydrothermal pretreated fibers and manufactured binderless boards from <i>Eucalyptus grandis</i> . <i>Sustainable Chemical Processes</i> , 2014, 2, .	2.3	52
45	A synergistic hydrothermal-deep eutectic solvent (DES) pretreatment for rapid fractionation and targeted valorization of hemicelluloses and cellulose from poplar wood. <i>Bioresource Technology</i> , 2021, 341, 125828.	9.6	52
46	Structural elucidation of lignin macromolecule from abaca during alkaline hydrogen peroxide delignification. <i>International Journal of Biological Macromolecules</i> , 2020, 144, 596-602.	7.5	51
47	Improved value and carbon footprint by complete utilization of corncob lignocellulose. <i>Chemical Engineering Journal</i> , 2021, 419, 129565.	12.7	50
48	Study on thermal degradation kinetics of cellulose-graft-poly(l-lactic acid) by thermogravimetric analysis. <i>Polymer Degradation and Stability</i> , 2014, 99, 233-239.	5.8	49
49	Effects of Various Surfactants on Alkali Lignin Electrospinning Ability and Spun Fibers. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 9551-9559.	3.7	49
50	Raney Ni as a Versatile Catalyst for Biomass Conversion. <i>ACS Catalysis</i> , 2021, 11, 10508-10536.	11.2	49
51	Isolation and physico-chemical characterization of lignins from ultrasound irradiated fast-growing poplar wood. <i>BioResources</i> , 2011, 6, 414-433.	1.0	48
52	A review on production of lignin-based i-,occulants: Sustainable feedstock and low carbon footprint applications. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 134, 110384.	16.4	46
53	Short-time deep eutectic solvents pretreatment enhanced production of fermentable sugars and tailored lignin nanoparticles from abaca. <i>International Journal of Biological Macromolecules</i> , 2021, 192, 417-425.	7.5	46
54	Green synthesis of chemical converted graphene sheets derived from pulping black liquor. <i>Carbon</i> , 2020, 158, 690-697.	10.3	45

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55	Hydrothermal degradation of lignin: Products analysis for phenol formaldehyde adhesive synthesis. <i>International Journal of Biological Macromolecules</i> , 2015, 72, 54-62.	7.5	44
56	Preparation of Lignin-Phenol-Formaldehyde Resin Adhesive Based on Active Sites of Technical Lignin. <i>Journal of Biobased Materials and Bioenergy</i> , 2015, 9, 266-272.	0.3	39
57	Selective precipitation and characterization of lignin-carbohydrate complexes (LCCs) from Eucalyptus. <i>Planta</i> , 2018, 247, 1077-1087.	3.2	39
58	Valorization of lignin and cellulose in acid-steam-exploded corn stover by a moderate alkaline ethanol post-treatment based on an integrated biorefinery concept. <i>Biotechnology for Biofuels</i> , 2016, 9, 238.	6.2	38
59	Lignin-derived materials and their applications in rechargeable batteries. <i>Green Chemistry</i> , 2022, 24, 565-584.	9.0	37
60	Structural characterization of lignin in heartwood, sapwood, and bark of eucalyptus. <i>International Journal of Biological Macromolecules</i> , 2019, 138, 519-527.	7.5	36
61	Use of xylooligosaccharides (XOS) in hemicelluloses/chitosan-based films reinforced by cellulose nanofiber: Effect on physicochemical properties. <i>Food Chemistry</i> , 2019, 298, 125041.	8.2	35
62	Homogeneous Esterification of Poplar Wood in an Ionic Liquid under Mild Conditions: Characterization and Properties. <i>Journal of Agricultural and Food Chemistry</i> , 2010, 58, 11302-11310.	5.2	34
63	Synergistic benefits of ionic liquid and alkaline pretreatments of poplar wood. Part 1: Effect of integrated pretreatment on enzymatic hydrolysis. <i>Bioresource Technology</i> , 2013, 144, 429-434.	9.6	34
64	Effect of ultrasonic time on the structural and physico-chemical properties of hemicelluloses from Eucalyptus grandis. <i>Carbohydrate Polymers</i> , 2018, 195, 114-119.	10.2	34
65	Synergistic benefits of ionic liquid and alkaline pretreatments of poplar wood. Part 2: Characterization of lignin and hemicelluloses. <i>Bioresource Technology</i> , 2013, 136, 345-350.	9.6	33
66	Technical Lignin Valorization in Biodegradable Polyester-Based Plastics (BPPs). <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 12017-12042.	6.7	33
67	Ultrafast alkaline deep eutectic solvent pretreatment for enhancing enzymatic saccharification and lignin fractionation from industrial xylose residue. <i>Bioresource Technology</i> , 2022, 352, 127065.	9.6	33
68	Eco-Friendly Phenol-Urea-Formaldehyde Co-condensed Resin Adhesives Accelerated by Resorcinol for Plywood Manufacturing. <i>ACS Omega</i> , 2018, 3, 8521-8528.	3.5	32
69	Chemical Changes of Raw Materials and Manufactured Binderless Boards during Hot Pressing: Lignin Isolation and Characterization. <i>BioResources</i> , 2013, 9, .	1.0	30
70	Structural Elucidation of Whole Lignin in Cell Walls of Triploid of <i>Populus tomentosa</i> Carr.. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 1006-1015.	6.7	29
71	One-pot preparation and characterization of lignin-based cation exchange resin and its utilization in Pb (II) removal. <i>Bioresource Technology</i> , 2020, 295, 122297.	9.6	29
72	Preparation and Characterization of Lignocellulosic Oil Sorbent by Hydrothermal Treatment of Populus Fiber. <i>Materials</i> , 2014, 7, 6733-6747.	2.9	27

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73	Effect of integrated treatment on improving the enzymatic digestibility of poplar and the structural features of isolated hemicelluloses. <i>Carbohydrate Polymers</i> , 2021, 252, 117164.	10.2	27
74	The direct transformation of bioethanol fermentation residues for production of high-quality resins. <i>Green Chemistry</i> , 2020, 22, 439-447.	9.0	26
75	Improvement in Wood Bonding Strength of Poly (Vinyl Acetate-Butyl Acrylate) Emulsion by Controlling the Amount of Redox Initiator. <i>Materials</i> , 2018, 11, 89.	2.9	25
76	Fractionation of technical lignin and its application on the lignin/poly-(butylene) Tj ETQqO 0 0 rgBT /Overlock 10 Tf 50 627 Td (adipate-c 209, 1065-1074.	7.5	25
77	Reconstitution of cellulose and lignin after [C₂mim][OAc] pretreatment and its relation to enzymatic hydrolysis. <i>Biotechnology and Bioengineering</i> , 2013, 110, 729-736.	3.3	24
78	Microwave-Assisted Sulfonation of Lignin for the Fabrication of a High-Performance Dye Dispersant. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 9053-9061.	6.7	24
79	Efficient fractionation of bamboo residue by autohydrolysis and deep eutectic solvents pretreatment. <i>Bioresource Technology</i> , 2022, 354, 127225.	9.6	23
80	Separation and Structural Characterization of Lignin from Hybrid Poplar Based on Complete Dissolution in DMSO/LiCl. <i>Separation Science and Technology</i> , 2010, 45, 2497-2506.	2.5	22
81	Compressive Alginate Sponge Derived from Seaweed Biomass Resources for Methylene Blue Removal from Wastewater. <i>Polymers</i> , 2019, 11, 961.	4.5	21
82	Integrated Hot-Compressed Water and Laccase-Mediator Treatments of <i>Eucalyptus grandis</i> Fibers: Structural Changes of Fiber and Lignin. <i>Journal of Agricultural and Food Chemistry</i> , 2015, 63, 1763-1772.	5.2	19
83	Effects of Hydrothermal Pretreatment on the Structural Characteristics of Organosolv Lignin from <i>Triarrhena lutarioriparia</i> . <i>Polymers</i> , 2018, 10, 1157.	4.5	19
84	Ultrafast fractionation of wild-type and CSE down-regulated poplars by microwave-assisted deep eutectic solvents (DES) for cellulose bioconversion enhancement and lignin nanoparticles fabrication. <i>Industrial Crops and Products</i> , 2022, 176, 114275.	5.2	19
85	A bio-based coating onto the surface <i>Populus</i> fiber for oil spillage cleanup applications. <i>Industrial Crops and Products</i> , 2017, 98, 38-45.	5.2	18
86	Valorization of Technical Lignin for the Production of Desirable Resins with High Substitution Rate and Controllable Viscosity. <i>ChemSusChem</i> , 2020, 13, 4446-4454.	6.8	18
87	Recent Advances in the Catalytic Upgrading of Biomass Platform Chemicals Via Hydrotalcite-Derived Metal Catalysts. <i>Transactions of Tianjin University</i> , 2022, 28, 89-111.	6.4	17
88	Structural Features of Alkaline Dioxane Lignin and Residual Lignin from <i>Eucalyptus grandis</i> \bar{A} - <i>E. urophylla</i> . <i>Journal of Agricultural and Food Chemistry</i> , 2019, 67, 968-974.	5.2	16
89	A sustainable agricultural strategy integrating Cd-contaminated soils remediation and bioethanol production using sorghum cultivars. <i>Industrial Crops and Products</i> , 2021, 162, 113299.	5.2	16
90	Exploration of deep eutectic solvent-based biphasic system for furfural production and enhancing enzymatic hydrolysis: Chemical, topochemical, and morphological changes. <i>Bioresource Technology</i> , 2022, 352, 127074.	9.6	15

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91	Homogeneous butyrylation and lauroylation of poplar wood in the ionic liquid 1-butyl-3-methylimidazolium chloride. <i>Bioresource Technology</i> , 2011, 102, 4590-4593.	9.6	14
92	Unmasking the heterogeneity of carbohydrates in heartwood, sapwood, and bark of Eucalyptus. <i>Carbohydrate Polymers</i> , 2020, 238, 116212.	10.2	14
93	Revealing the Topochemistry and Structural Features of Lignin during the Growth of <i>Eucalyptus grandis</i> – <i>Eucalyptus urophylla</i> . <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 9198-9207.	6.7	13
94	Unveiling the Migration and Transformation Mechanism of Lignin in <i>Eucalyptus</i> During Deep Eutectic Solvent Pretreatment. <i>ChemSusChem</i> , 2022, 15, .	6.8	13
95	Comparison of cellulose and chitin nanocrystals for reinforcing regenerated cellulose fibers. <i>Journal of Applied Polymer Science</i> , 2017, 134, .	2.6	11
96	SYNTHESIS AND CHARACTERIZATION OF CELLULOSE-GRAFT-POLY (L-LACTIDE) VIA RING-OPENING POLYMERIZATION. <i>BioResources</i> , 2012, 7, .	1.0	10
97	Upgrading Traditional Pulp Mill into Biorefinery Platform: Wheat Straw as a Feedstock. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 15284-15291.	6.7	9
98	Insights into Structural Transformations of Lignin Toward High Reactivity During Choline Chloride/Formic Acid Deep Eutectic Solvents Pretreatment. <i>Frontiers in Energy Research</i> , 2020, 8, .	2.3	9
99	Effect of alkaline preswelling on the structure of lignins from Eucalyptus. <i>Scientific Reports</i> , 2017, 7, 45752.	3.3	7
100	A scalable and simple lignin-based polymer for ultra-efficient flocculation and sterilization. <i>Separation and Purification Technology</i> , 2022, 292, 120960.	7.9	7
101	Ultrastructural elucidation of lignin macromolecule from different growth stages of Chinese pine. <i>International Journal of Biological Macromolecules</i> , 2022, 209, 1792-1800.	7.5	6
102	Aldehydes-Aided Lignin-First Deconstruction Strategy for Facilitating Lignin Monomers and Fermentable Glucose Production from Poplar Wood. <i>Energies</i> , 2020, 13, 1113.	3.1	4
103	Performance regulation of lignin-based flocculant at the practical molecular level by fractionation. <i>Separation and Purification Technology</i> , 2022, 299, 121670.	7.9	4
104	Recent Advances in Lignin Modification and Its Application in Wastewater Treatment. <i>ACS Symposium Series</i> , 2021, , 143-173.	0.5	3