Junana Wei

List of Publications by Year
in descending order

110 papers	4,558 citations	101496 36 h-index	114418 63 g-index
116 all docs	116 docs citations	116 times ranked	3981 citing authors

#	Article	IF	Citations
1	Catalytic conversion of biomass-derived carbohydrates into fuels and chemicals via furanic aldehydes. RSC Advances, 2012, 2, 11184.	1.7	329
2	Green Processing of Lignocellulosic Biomass and Its Derivatives in Deep Eutectic Solvents. ChemSusChem, 2017, 10, 2696-2706.	3.6	269
3	Catalytic Advances in the Production and Application of Biomass-Derived 2,5-Dihydroxymethylfuran. ACS Catalysis, 2018, 8, 2959-2980.	5.5	210
4	Chemoselective hydrogenation of biomass derived 5-hydroxymethylfurfural to diols: Key intermediates for sustainable chemicals, materials and fuels. Renewable and Sustainable Energy Reviews, 2017, 77, 287-296.	8.2	165
5	Conversion of carbohydrates biomass into levulinate esters using heterogeneous catalysts. Applied Energy, 2011, 88, 4590-4596.	5.1	162
6	Conversion of biomass-derived ethyl levulinate into Î³-valerolactone via hydrogen transfer from supercritical ethanol over a ZrO2 catalyst. RSC Advances, 2013, 3, 10277.	1.7	137
7	Catalytic transfer hydrogenation of biomass-derived 5-hydroxymethyl furfural to the building block 2,5-bishydroxymethyl furan. Green Chemistry, 2016, 18, 1080-1088.	4.6	136
8	Chemoselective Hydrogenation of Biomass-Derived 5-Hydroxymethylfurfural into the Liquid Biofuel 2,5-Dimethylfuran. Industrial & Engineering Chemistry Research, 2014, 53, 9969-9978.	1.8	128
9	Advances in catalytic production of bio-based polyester monomer 2,5-furandicarboxylic acid derived from lignocellulosic biomass. Carbohydrate Polymers, 2015, 130, 420-428.	5.1	118
10	Earth-abundant 3d-transition-metal catalysts for lignocellulosic biomass conversion. Chemical Society Reviews, 2021, 50, 6042-6093.	18.7	104
11	Vitamin C-Assisted Synthesized Mnâ€"Co Oxides with Improved Oxygen Vacancy Concentration: Boosting Lattice Oxygen Activity for the Air-Oxidation of 5-(Hydroxymethyl)furfural. ACS Catalysis, 2021, 11, 7828-7844.	5.5	103
12	Efficient Conversion of Glucose into 5-Hydroxymethylfurfural by Chromium(III) Chloride in Inexpensive Ionic Liquid. Industrial & Engineering Chemistry Research, 2012, 51, 1099-1104.	1.8	101
13	Efficient Production of Furan Derivatives from a Sugar Mixture by Catalytic Process. Energy & Fuels, 2012, 26, 4560-4567.	2.5	99
14	Extraction of cellulose nanocrystals using a recyclable deep eutectic solvent. Cellulose, 2020, 27, 1301-1314.	2.4	84
15	Efficient Aerobic Oxidation of 5-Hydroxymethylfurfural to 2,5-Diformylfuran over Fe₂O₃-Promoted MnO₂ Catalyst. ACS Sustainable Chemistry and Engineering, 2019, 7, 7812-7822.	3.2	71
16	An effective pathway for converting carbohydrates to biofuel 5-ethoxymethylfurfural via 5-hydroxymethylfurfural with deep eutectic solvents (DESs). Industrial Crops and Products, 2018, 112, 18-23.	2.5	69
17	Inâ€…Situ Generated Catalyst System to Convert Biomassâ€Derived Levulinic Acid to Î³â€Valerolactone. ChemCatChem, 2015, 7, 1372-1379.	1.8	62
18	Maltodextrin: A consummate carrier for spray-drying of xylooligosaccharides. Food Research International, 2018, 106, 383-393.	2.9	59

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19	Catalytic transfer hydrogenation of biomass-derived 5-hydroxymethylfurfural into 2,5-bis(hydroxymethyl)furan over tunable Zr-based bimetallic catalysts. Catalysis Science and Technology, 2018, 8, 4474-4484.	2.1	58
20	Eco-friendly polymer nanocomposite hydrogel enhanced by cellulose nanocrystal and graphitic-like carbon nitride nanosheet. Chemical Engineering Journal, 2020, 386, 124021.	6.6	58
21	Inâ€…Situ Catalytic Hydrogenation of Biomassâ€Derived Methyl Levulinate to Î³â€Valerolactone in Methanol. ChemSusChem, 2015, 8, 1601-1607.	3.6	56
22	Insights into the active sites and catalytic mechanism of oxidative esterification of 5-hydroxymethylfurfural by metal-organic frameworks-derived N-doped carbon. Journal of Catalysis, 2020, 381, 570-578.	3.1	56
23	Cascade conversion of furfural to fuel bioadditive ethyl levulinate over bifunctional zirconium-based catalysts. Renewable Energy, 2020, 147, 916-923.	4.3	54
24	Highly Selective Conversion of Furfural to Furfural Alcohol or Levulinate Ester in One Pot over ZrO₂@SBA-15 and Its Kinetic Behavior. ACS Sustainable Chemistry and Engineering, 2020, 8, 5584-5594.	3.2	53
25	Cu¹â€"Cu⁰ bicomponent CuNPs@ZIF-8 for highly selective hydrogenation of biomass derived 5-hydroxymethylfurfural. Green Chemistry, 2019, 21, 4319-4323.	4.6	52
26	Cellulose nanocrystalline hydrogel based on a choline chloride deep eutectic solvent as wearable strain sensor for human motion. Carbohydrate Polymers, 2021, 255, 117443.	5.1	52
27	Development of a Two-Stage Microalgae Dewatering Process â€" A Life Cycle Assessment Approach. Frontiers in Plant Science, 2016, 7, 113.	1.7	50
28	Performance and emission characteristics of a diesel engine running on optimized ethyl levulinateâ€"biodieselâ€"diesel blends. Energy, 2016, 95, 29-40.	4.5	48
29	Catalytic Transfer Hydrogenolysis/Hydrogenation of Biomass-Derived 5-Formyloxymethylfurfural to 2, 5-Dimethylfuran Over Niâ€"Cu Bimetallic Catalyst with Formic Acid As a Hydrogen Donor. Industrial & Engineering Chemistry Research, 2019, 58, 5414-5422.	1.8	47
30	Stretchable, freezing-tolerant conductive hydrogel for wearable electronics reinforced by cellulose nanocrystals toward multiple hydrogen bonding. Carbohydrate Polymers, 2022, 280, 119018.	5.1	47
31	Green catalytic conversion of bio-based sugars to 5-chloromethyl furfural in deep eutectic solvent, catalyzed by metal chlorides. RSC Advances, 2016, 6, 27004-27007.	1.7	42
32	Synthesis of MCMâ€41â€Supported Metal Catalysts in Deep Eutectic Solvent for the Conversion of Carbohydrates into 5â€Hydroxymethylfurfural. ChemSusChem, 2019, 12, 978-982.	3.6	42
33	Development of Betaineâ€Based Sustainable Catalysts for Green Conversion of Carbohydrates and Biomass into 5â€Hydroxymethylfurfural. ChemSusChem, 2019, 12, 495-502.	3.6	42
34	Catalytic Conversion of Biomass to Furanic Derivatives with Deep Eutectic Solvents. ChemSusChem, 2021, 14, 1496-1506.	3.6	42
35	A flexible Cu-based catalyst system for the transformation of fructose to furanyl ethers as potential bio-fuels. Applied Catalysis B: Environmental, 2019, 258, 117793.	10.8	41
36	Recent advances on sustainable cellulosic materials for pharmaceutical carrier applications. Carbohydrate Polymers, 2020, 244, 116492.	5.1	40

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37	Catalyst design strategy toward the efficient heterogeneously-catalyzed selective oxidation of 5-hydroxymethylfurfural. Green Energy and Environment, 2022, 7, 900-932.	4.7	38
38	Stability of Soluble Dialdehyde Cellulose and the Formation of Hollow Microspheres: Optimization and Characterization. ACS Sustainable Chemistry and Engineering, 2019, 7, 2151-2159.	3.2	37
39	Phosphate limitation promotes unsaturated fatty acids and arachidonic acid biosynthesis by microalgae Porphyridium purpureum. Bioprocess and Biosystems Engineering, 2016, 39, 1129-1136.	1.7	36
40	Cooking with Active Oxygen and Solid Alkali: A Promising Alternative Approach for Lignocellulosic Biorefineries. ChemSusChem, 2017, 10, 3982-3993.	3.6	36
41	Highly selective hydrogenation of biomass-derived 5-hydroxymethylfurfural into 2,5-bis(hydroxymethyl)furan over an acidâ€“base bifunctional hafnium-based coordination polymer catalyst. Sustainable Energy and Fuels, 2019, 3, 1033-1041.	2.5	35
42	Stable and efficient CuCr catalyst for the solvent-free hydrogenation of biomass derived ethyl levulinate to Î³-valerolactone as potential biofuel candidate. Fuel, 2016, 175, 232-239.	3.4	33
43	Oxidative Esterification of 5â€Hydroxymethylfurfural with an Nâ€doped Carbonâ€supported CoCu Bimetallic Catalyst. ChemSusChem, 2020, 13, 4151-4158.	3.6	33
44	Preparation of 5â€(Aminomethyl)â€2â€furanmethanol by direct reductive amination of 5â€Hydroxymethylfurfural with aqueous ammonia over the Ni/SBAâ€15 catalyst. Journal of Chemical Technology and Biotechnology, 2018, 93, 3028-3034.	1.6	32
45	Highly Flexible and Broad-Range Mechanically Tunable All-Wood Hydrogels with Nanoscale Channels via the Hofmeister Effect for Human Motion Monitoring. Nano-Micro Letters, 2022, 14, 84.	14.4	31
46	Aqueousâ€Natural Deep Eutectic Solventâ€Enhanced 5â€Hydroxymethylfurfural Production from Glucose, Starch, and Food Wastes. ChemSusChem, 2022, 15, .	3.6	30
47	Oxidation of 5-[(Formyloxy)methyl]furfural to Maleic Anhydride with Atmospheric Oxygen Using Î±-MnO₂/Cu(NO₃)₂ as Catalysts. ACS Sustainable Chemistry and Engineering, 2020, 8, 7901-7908.	3.2	28
48	Manganese catalyzed transfer hydrogenation of biomass-derived aldehydes: Insights to the catalytic performance and mechanism. Journal of Catalysis, 2020, 389, 157-165.	3.1	28
49	Highly dispersed Co/N-rich carbon nanosheets for the oxidative esterification of biomass-derived alcohols: Insights into the catalytic performance and mechanism. Journal of Catalysis, 2021, 397, 148-155.	3.1	28
50	Cooking with active oxygen and solid alkali facilitates lignin degradation in bamboo pretreatment. Sustainable Energy and Fuels, 2018, 2, 2206-2214.	2.5	26
51	Selective Hydrogenation of 5-Hydroxymethylfurfural into 2,5-Bis(hydroxymethyl)furan over a Cheap Carbon-Nanosheets-Supported Zr/Ca Bimetallic Catalyst. Energy & Fuels, 2020, 34, 8432-8439.	2.5	26
52	Synthesis, isolation and characterization of methyl levulinate from cellulose catalyzed by extremely low concentration acid. Journal of Energy Chemistry, 2013, 22, 895-901.	7.1	25
53	Stable and Biocompatible Cellulose-Based CaCO₃ Microspheres for Tunable pH-Responsive Drug Delivery. ACS Sustainable Chemistry and Engineering, 2019, 7, 19824-19831.	3.2	24
54	An efficient approach to produce 2,5â€diformylfuran from 5â€hydroxymethylfurfural using air as oxidant. Journal of Chemical Technology and Biotechnology, 2019, 94, 3832-3838.	1.6	24

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55	Characterization of Structural Changes of Lignin in the Process of Cooking of Bagasse with Solid Alkali and Active Oxygen as a Pretreatment for Lignin Conversion. Energy & Fuels, 2012, 26, 6999-7004.	2.5	23
56	Facile and Efficient Two-Step Formation of a Renewable Monomer 2,5-Furandicarboxylic Acid from Carbohydrates over the NiO_{<i>x</i>} Catalyst. Industrial & Engineering Chemistry Research, 2020, 59, 4895-4904.	1.8	23
57	Spray-dried xylooligosaccharides carried by gum Arabic. Industrial Crops and Products, 2019, 135, 330-343.	2.5	22
58	Highly Efficient Reductive Etherification of 5â€Hydroxymethylfurfural to 2,5â€Bis(Alkoxymethyl)Furans as Biodiesel Components over Zrâ€SBA Catalyst. Energy Technology, 2019, 7, 1801071.	1.8	22
59	Direct conversion of biomass derived <scp>l</scp>-rhamnose to 5-methylfurfural in water in high yield. Green Chemistry, 2020, 22, 5984-5988.	4.6	22
60	Light intensity and N/P nutrient affect the accumulation of lipid and unsaturated fatty acids by Chlorella sp.. Bioresource Technology, 2015, 191, 385-390.	4.8	21
61	Oneâ€Pot Synthesis of Renewable Phthalic Anhydride from 5â€Hydroxymethfurfural by using MoO₃/Cu(NO₃)₂ as Catalyst. ChemSusChem, 2020, 13, 640-646.	3.6	21
62	5-Aminolevulinic acid promotes arachidonic acid biosynthesis in the red microalga Porphyridium purpureum. Biotechnology for Biofuels, 2017, 10, 168.	6.2	20
63	Synthesis of renewable monomer 2, 5-bishydroxymethylfuran from highly concentrated 5-hydroxymethylfurfural in deep eutectic solvents. Journal of Industrial and Engineering Chemistry, 2020, 81, 93-98.	2.9	20
64	Domino transformation of furfural to Î³-valerolactone over SAPO-34 zeolite supported zirconium phosphate catalysts with tunable Lewis and BrÃ¸nsted acid sites. Molecular Catalysis, 2021, 506, 111538.	1.0	19
65	Anisotropic, strong, self-adhesive and strain-sensitive hydrogels enabled by magnetically-oriented cellulose/polydopamine nanocomposites. Carbohydrate Polymers, 2022, 276, 118783.	5.1	19
66	Using a trait-based approach to optimize mixotrophic growth of the red microalga Porphyridium purpureum towards fatty acid production. Biotechnology for Biofuels, 2018, 11, 273.	6.2	18
67	Production of levulinic acid and ethyl levulinate from cellulosic pulp derived from the cooking of lignocellulosic biomass with active oxygen and solid alkali. Korean Journal of Chemical Engineering, 2019, 36, 740-752.	1.2	18
68	Choline chloride-promoted efficient solvent-free hydrogenation of biomass-derived levulinic acid to Î³-valerolactone over Ru/C. Green Chemistry, 2021, 23, 1983-1988.	4.6	18
69	The Crossâ€Linking Mechanism and Applications of Catecholâ€"Metal Polymer Materials. Advanced Materials Interfaces, 2021, 8, 2100239.	1.9	18
70	A self-healing water-dissolvable and stretchable cellulose-hydrogel for strain sensor. Cellulose, 2022, 29, 341-354.	2.4	18
71	Effective production of Î³-valerolactone from biomass-derived methyl levulinate over CuO -CaCO3 catalyst. Chinese Journal of Catalysis, 2019, 40, 192-203.	6.9	17
72	Chemical Structure Change of Magnesium Oxide in the Wet Oxidation Delignification Process of Biomass with Solid Alkali. ChemCatChem, 2017, 9, 2544-2549.	1.8	16

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73	Comparison of the Physical and Chemical Properties, Performance, and Emissions of Ethyl Levulinateâ€“Biodieselâ€“Diesel and <i>n</i>-Butanolâ€“Biodieselâ€“Diesel Blends. Energy & Fuels, 2017, 31, 5055-5062.	2.5	16
74	Iron-Adjustable Compressible Elastic Chitosan-Derived Carbon Aerogel with Wide-Range Linear Sensitivity and Super Sensing Performances for Wearable Piezoresistive Sensors. ACS Sustainable Chemistry and Engineering, 2022, 10, 10604-10614.	3.2	16
75	An effective pathway for 5-brominemethylfurfural synthesis from biomass sugars in deep eutectic solvent. Journal of Chemical Technology and Biotechnology, 2017, 92, 2929-2933.	1.6	15
76	Scale-up cultivation enhanced arachidonic acid accumulation by red microalgae Porphyridium purpureum. Bioprocess and Biosystems Engineering, 2017, 40, 1763-1773.	1.7	15
77	Green Processing of Lignocellulosic Biomass and Its Derivatives in Deep Eutectic Solvents. ChemSusChem, 2017, 10, 2695-2695.	3.6	15
78	Boosting the Acid Sites and Lattice Oxygen Activity of the Feâ€“Cu Catalyst for One-Pot Producing 2,5-Diformylfuran from Fructose. ACS Sustainable Chemistry and Engineering, 2022, 10, 421-430.	3.2	15
79	Tandem thionation of biomass derived levulinic acid with Lawesson's reagent. Green Chemistry, 2016, 18, 2971-2975.	4.6	14
80	Efficient conversion of fructose to 5-[(formyloxy)methyl]furfural by reactive extraction and in-situ esterification. Korean Journal of Chemical Engineering, 2018, 35, 1312-1318.	1.2	14
81	Facile fabrication of super-hydrophilic cellulose hydrogel-coated mesh using deep eutectic solvent for efficient gravity-driven oil/water separation. Cellulose, 2021, 28, 949-960.	2.4	14
82	Green Process for 5â€(Chloromethyl)furfural Production from Biomass in Threeâ€Constituent Deep Eutectic Solvent. ChemSusChem, 2021, 14, 847-851.	3.6	14
83	Cellulase production and efficient saccharification of biomass by a new mutant Trichoderma afroharzianum MEA-12. Biotechnology for Biofuels, 2021, 14, 219.	6.2	14
84	Atom-economical synthesis of Î³-valerolactone with self-supplied hydrogen from methanol. Chemical Communications, 2015, 51, 16320-16323.	2.2	13
85	Sustainable microalgaeâ€based palm oil mill effluent treatment process with simultaneous biomass production. Canadian Journal of Chemical Engineering, 2016, 94, 1848-1854.	0.9	13
86	Efficient synthesis of 2,5-furandicarboxylic acid from biomass-derived 5-hydroxymethylfurfural in 1,4-dioxane/H2O mixture. Applied Catalysis A: General, 2022, 630, 118463.	2.2	13
87	Induced cultivation pattern enhanced the phycoerythrin production in red alga Porphyridium purpureum. Bioprocess and Biosystems Engineering, 2020, 43, 347-355.	1.7	12
88	Catalytic Conversion of Biomassâ€Derived 2, 5â€Dimethylfuran into Renewable pâ€Xylene over SAPOâ€34 Catalyst. ChemistrySelect, 2020, 5, 2449-2454.	0.7	12
89	Insights into the catalytic mechanism of 5-hydroxymethfurfural to phthalic anhydride with MoO₃/Cu(NO₃)₂ in one-pot. Catalysis Science and Technology, 2021, 11, 5656-5662.	2.1	12
90	Generation of Methyl Vinyl Ketone from Oxidation of Levulinic Acid Oxidized by Cupric Oxide Complex. Chinese Journal of Chemistry, 2012, 30, 327-332.	2.6	10

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91	Preparation of Ethyl Cellulose Composite Film with Down Conversion Luminescence Properties by Doping Perovskite Quantum Dots. ChemistrySelect, 2019, 4, 6516-6523.	0.7	10
92	Interfacial assembly of self-healing and mechanically stable hydrogels for degradation of organic dyes in water. Communications Materials, 2020, 1, .	2.9	10
93	Removal of copper ions by cellulose nanocrystal-based hydrogel and reduced adsorbents for its catalytic properties. Cellulose, 2022, 29, 4525-4537.	2.4	10
94	Hydrogenation of methyl levulinate to Î³â€valerolactone over Cuâ"€Mg oxide using MeOH as <i>in situ</i> hydrogen source. Journal of Chemical Technology and Biotechnology, 2019, 94, 167-177.	1.6	9
95	Efficient synthesis of bioâ€based monomer 2,5â€bishydroxymethylfuran by the solventâ€free hydrogenation of 5â€hydroxymethylfurfuralâ€based deep eutectic mixture. Journal of Chemical Technology and Biotechnology, 2020, 95, 1748-1755.	1.6	9
96	Selective oxidation of 5-formyloxymethylfurfural to 2, 5-furandicarboxylic acid with Ru/C in water solution. Korean Journal of Chemical Engineering, 2020, 37, 224-230.	1.2	9
97	Efficient Synthesis of Sugar Alcohols over a Synergistic and Sustainable Catalyst. Chinese Journal of Chemistry, 2021, 39, 2467-2476.	2.6	8
98	An efficient approach to synthesizing 2,5-bis(<i>N</i>-methyl-aminomethyl)furan from 5-hydroxymethylfurfural <i>via</i> 2,5-bis(<i>N</i>-methyl-iminomethyl)furan using a two-step reaction in one pot. Green Chemistry, 2021, 23, 5656-5664.	4.6	8
99	The structural features of hemicelluloses dissolved out at different cooking stages of active oxygen cooking process. Carbohydrate Polymers, 2014, 104, 182-190.	5.1	5
100	Methyl 4-methoxypentanoate: a novel and potential downstream chemical of biomass derived gamma-valerolactone. RSC Advances, 2015, 5, 8297-8300.	1.7	5
101	Facile One-Pot Synthesis of Furan Double Schiff Base from 5-Hydroxymethylfurfural via an Aminationâ€"Oxidationâ€"Amination Strategy in Water. ACS Sustainable Chemistry and Engineering, 2022, 10, 6835-6842.	3.2	5
102	Cellulose Fibrils Extracted from Bamboo Chips as a Reinforcing Material for Prolonged Drug Release. ChemistrySelect, 2020, 5, 9957-9965.	0.7	4
103	Integration of hemicellulose pre-extraction and solid alkali-oxygen cooking processes for lignocellulose fractionation with emphasis on xylan valorization. Korean Journal of Chemical Engineering, 2021, 38, 788-796.	1.2	4
104	Solventâ€Free Hydrogenation of 5â€Hydroxymethylfurfural and Furfural to Furanyl Alcohols and their Selfâ€Condensation Polymers. ChemSusChem, 2022, , .	3.6	4
105	Construction of Synergistic Co and Cu Diatomic Sites for Enhanced Higher Alcohol Synthesis. CCS Chemistry, 2023, 5, 851-864.	4.6	4
106	Molecular mechanism of arachidonic acid biosynthesis in Porphyridium purpureum promoted by nitrogen limitation. Bioprocess and Biosystems Engineering, 2021, 44, 1491-1499.	1.7	3
107	Green and mild production of 5-aminolevulinic acid from algal biomass. Korean Journal of Chemical Engineering, 2021, 38, 899-905.	1.2	3
108	Special Section for the 4th International Conference on Biorefineryâ€"Toward Bioenergy. Energy & Fuels, 2014, 28, 4241-4241.	2.5	2

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109	One-pot synthesis of high fructose corn syrup directly from starch with SO 4 2â^' /USY solid catalyst. Korean Journal of Chemical Engineering, 2017, 34, 1924-1929.	1.2	1
110	Reinforcement Learning Based Prioritized Cross-Area Resource Management for Vehicular Cloud Networks. , 2019, , .		1