Zhenjie Yu

List of Publications by Year
in descending order

90 papers	4,795 citations	41 h-index	66 g-index
90 all docs	90 docs citations	90 times ranked	3287 citing authors

71102
102487

#	Article	IF	Citations
1	Biomass pyrolysis: A review of the process development and challenges from initial researches up to the commercialisation stage. Journal of Energy Chemistry, 2019, 39, 109-143.	12.9	412
2	Investigation of the steam reforming of a series of model compounds derived from bio-oil for hydrogen production. Applied Catalysis B: Environmental, 2009, 88, 376-385.	20.2	157
3	Acid-Catalyzed Conversion of Xylose in 20 Solvents: Insight into Interactions of the Solvents with Xylose, Furfural, and the Acid Catalyst. ACS Sustainable Chemistry and Engineering, 2014, 2, 2562-2575.	6.7	157
4	Investigation of steam reforming of acetic acid to hydrogen over Niâ€“Co metal catalyst. Journal of Molecular Catalysis A, 2007, 261, 43-48.	4.8	155
5	Polymerization on heating up of bioâ€oil: A model compound study. AIChE Journal, 2013, 59, 888-900.	3.6	150
6	Comparative study of alumina-supported transition metal catalysts for hydrogen generation by steam reforming of acetic acid. Applied Catalysis B: Environmental, 2010, 99, 289-297.	20.2	131
7	Copper-based catalysts with tunable acidic and basic sites for the selective conversion of levulinic acid/ester to Î³-valerolactone or 1,4-pentanediol. Green Chemistry, 2019, 21, 4499-4511.	9.0	123
8	Impacts of nickel loading on properties, catalytic behaviors of Ni/Î³â€“Al2O3 catalysts and the reaction intermediates formed in methanation of CO2. International Journal of Hydrogen Energy, 2019, 44, 9291-9306.	7.1	116
9	Steam reforming of acetic acid over Ni/ZrO2 catalysts: Effects of nickel loading and particle size on product distribution and coke formation. Applied Catalysis A: General, 2012, 417-418, 281-289.	4.3	107
10	Evolution of the functionalities and structures of biochar in pyrolysis of poplar in a wide temperature range. Bioresource Technology, 2020, 304, 123002.	9.6	104
11	High yields of solid carbonaceous materials from biomass. Green Chemistry, 2019, 21, 1128-1140.	9.0	103
12	Pyrolysis of poplar, cellulose and lignin: Effects of acidity and alkalinity of the metal oxide catalysts. Journal of Analytical and Applied Pyrolysis, 2018, 134, 590-605.	5.5	97
13	Removal of heavy metals from soil with biochar composite: A critical review of the mechanism. Journal of Environmental Chemical Engineering, 2021, 9, 105830.	6.7	97
14	Steam reforming of acetic acid over Ni/Al2O3 catalysts: Correlation of nickel loading with properties and catalytic behaviors of the catalysts. Fuel, 2018, 217, 389-403.	6.4	95
15	Steam reforming of acetic acid over nickel-based catalysts: The intrinsic effects of nickel precursors on behaviors of nickel catalysts. Applied Catalysis B: Environmental, 2018, 237, 538-553.	20.2	90
16	A mini review of the specialties of the bio-oils produced from pyrolysis of 20 different biomasses. Renewable and Sustainable Energy Reviews, 2019, 114, 109313.	16.4	83
17	One-pot conversion of biomass-derived xylose and furfural into levulinate esters via acid catalysis. Chemical Communications, 2017, 53, 2938-2941.	4.1	82
18	Catalytic pyrolysis of poplar wood over transition metal oxides: Correlation of catalytic behaviors with physiochemical properties of the oxides. Biomass and Bioenergy, 2019, 124, 125-141.	5.7	82

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19	Pyrolysis of different wood species: Impacts of C/H ratio in feedstock on distribution of pyrolysis products. Biomass and Bioenergy, 2019, 120, 28-39.	5.7	81
20	Steam reforming of guaiacol over Ni/Al2O3 and Ni/SBA-15: Impacts of support on catalytic behaviors of nickel and properties of coke. Fuel Processing Technology, 2019, 191, 138-151.	7.2	78
21	Effects of temperature on the hydrotreatment behaviour of pyrolysis bio-oil and coke formation in a continuous hydrotreatment reactor. Fuel Processing Technology, 2016, 148, 175-183.	7.2	77
22	Progress in the reforming of bio-oil derived carboxylic acids for hydrogen generation. Journal of Power Sources, 2018, 403, 137-156.	7.8	75
23	Inhibition of methane formation in steam reforming reactions through modification of Ni catalyst and the reactants. Green Chemistry, 2009, 11, 724.	9.0	74
24	Acetic acid steam reforming to hydrogen over Coâ€"Ce/Al2O3 and Coâ€"La/Al2O3 catalystsâ€"The promotion effect of Ce and La addition. Catalysis Communications, 2010, 12, 50-53.	3.3	74
25	Different reaction behaviours of light or heavy density polyethylene during the pyrolysis with biochar as the catalyst. Journal of Hazardous Materials, 2020, 399, 123075.	12.4	74
26	Bio-oil steam reforming, partial oxidation or oxidative steam reforming coupled with bio-oil dry reforming to eliminate CO2 emission. International Journal of Hydrogen Energy, 2010, 35, 7169-7176.	7.1	67
27	Upgrading of bio-oil into advanced biofuels and chemicals. Part II. Importance of holdup of heavy species during the hydrotreatment of bio-oil in a continuous packed-bed catalytic reactor. Fuel, 2013, 112, 302-310.	6.4	65
28	Biomass-derived sugars and furans: Which polymerize more during their hydrolysis?. Fuel Processing Technology, 2015, 137, 212-219.	7.2	64
29	Steam reforming of acetic acid over cobalt catalysts: Effects of Zr, Mg and K addition. International Journal of Hydrogen Energy, 2017, 42, 4793-4803.	7.1	63
30	Balanced distribution of BrÃ¸nsted acidic sites and Lewis acidic sites for highly selective conversion of xylose into levulinic acid/ester over Zr-beta catalysts. Green Chemistry, 2019, 21, 6634-6645.	9.0	63
31	Pyrolysis of the aromatic-poor and aromatic-rich fractions of bio-oil: Characterization of coke structure and elucidation of coke formation mechanism. Applied Energy, 2019, 239, 981-990.	10.1	59
32	Pruning of the surface species on Ni/Al2O3 catalyst to selective production of hydrogen via acetone and acetic acid steam reforming. Applied Catalysis A: General, 2012, 427-428, 49-57.	4.3	58
33	Understanding correlation of the interaction between nickel and alumina with the catalytic behaviors in steam reforming and methanation. Fuel, 2019, 250, 176-193.	6.4	56
34	Effects of calcination temperature of electrospun fibrous Ni/Al 2 O 3 catalysts on the dry reforming of methane. Fuel Processing Technology, 2017, 155, 246-251.	7.2	52
35	Impacts of temperature on evolution of char structure during pyrolysis of lignin. Science of the Total Environment, 2020, 699, 134381.	8.0	52
36	Investigation of deactivation mechanisms of a solid acid catalyst during esterification of the bio-oils from mallee biomass. Applied Energy, 2013, 111, 94-103.	10.1	51

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37	Steam reforming of acetic acid over Ni/Al2O3 catalyst: Correlation of calcination temperature with the interaction of nickel and alumina. Fuel, 2018, 227, 307-324.	6.4	51
38	Renewable hydrogen production by a mild-temperature steam reforming of the model compound acetic acid derived from bio-oil. Journal of Molecular Catalysis A, 2012, 355, 123-133.	4.8	49
39	Raman Spectroscopy as a Versatile Tool for Investigating Thermochemical Processing of Coal, Biomass, and Wastes: Recent Advances and Future Perspectives. Energy & Fuels, 2021, 35, 2870-2913.	5.1	48
40	Oxidative pyrolysis of mallee wood biomass, cellulose and lignin. Fuel, 2018, 217, 382-388.	6.4	44
41	Hydrolysis and glycosidation of sugars during the esterification of fast pyrolysis bio-oil. Fuel, 2012, 95, 146-151.	6.4	43
42	Investigation of coking behaviors of model compounds in bio-oil during steam reforming. Fuel, 2020, 265, 116961.	6.4	43
43	Evolution of the functional groups/structures of biochar and heteroatoms during the pyrolysis of seaweed. Algal Research, 2020, 48, 101900.	4.6	43
44	Steam reforming of acetic acid over Ni/biochar catalyst treated with HNO3: Impacts of the treatment on surface properties and catalytic behaviors. Fuel, 2020, 278, 118341.	6.4	41
45	Steam reforming of the alcohols with varied structures: Impacts of acidic sites of Ni catalysts on coking. Applied Catalysis A: General, 2019, 584, 117162.	4.3	40
46	Steam reforming of guaiacol over Ni/SiO2 catalyst modified with basic oxides: Impacts of alkalinity on properties of coke. Energy Conversion and Management, 2020, 205, 112301.	9.2	40
47	Steam reforming of acetic acid over Niâ€“Ba/Al2O3 catalysts: Impacts of barium addition on coking behaviors and formation of reaction intermediates. Journal of Energy Chemistry, 2020, 43, 208-219.	12.9	38
48	Steam Reforming of Acetic Acid to Hydrogen over Feâ€“Co Catalyst. Chemistry Letters, 2006, 35, 452-453.	1.3	37
49	Regulation the reaction intermediates in methanation reactions via modification of nickel catalysts with strong base. Fuel, 2019, 237, 566-579.	6.4	35
50	Different reaction behaviours of the light and heavy components of bio-oil during the hydrotreatment in a continuous pack-bed reactor. Fuel Processing Technology, 2016, 146, 76-84.	7.2	34
51	Co-liquefaction of mixed biomass feedstocks for bio-oil production: A critical review. Renewable and Sustainable Energy Reviews, 2022, 154, 111814.	16.4	33
52	Impacts of alkali or alkaline earth metals addition on reaction intermediates formed in methanation of CO2 over cobalt catalysts. Journal of the Energy Institute, 2020, 93, 1581-1596.	5.3	31
53	Oxidase-Inspired Selective 2e/4e Reduction of Oxygen on Electron-Deficient Cu. ACS Applied Materials & Interfaces, 2020, 12, 4833-4842.	8.0	31
54	Steam reforming of typical small organics derived from bio-oil: Correlation of their reaction behaviors with molecular structures. Fuel, 2020, 259, 116214.	6.4	30

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55	Competition between acidic sites and hydrogenation sites in Cu/ZrO2 catalysts with different crystal phases for conversion of biomass-derived organics. Green Energy and Environment, 2021, 6, 557-566.	8.7	30
56	Evidence for cross-polymerization between the biomass-derived furans and phenolics. Renewable Energy, 2020, 154, 517-531.	8.9	27
57	Cross-Polymerization between the Typical Sugars and Phenolic Monomers in Bio-Oil: A Model Compounds Study. Energy & Fuels, 2019, 33, 7480-7490.	5.1	26
58	Pyrolysis of flaxseed residue: Exploration of characteristics of the biochar and bio-oil products. Journal of the Energy Institute, 2021, 97, 1-12.	5.3	25
59	A microchannel reactor-integrated ceramic fuel cell with dual-coupling effect for efficient power and syngas co-generation from methane. Applied Catalysis B: Environmental, 2021, 297, 120443.	20.2	25
60	Ethanol steam reforming over cobalt catalysts: Effect of a range of additives on the catalytic behaviors. Journal of the Energy Institute, 2020, 93, 165-184.	5.3	24
61	Steam reforming of carboxylic acids for hydrogen generation: Effects of aliphatic chain of the acids on their reaction behaviors. Molecular Catalysis, 2018, 450, 1-13.	2.0	23
62	Structural differences of the soluble oligomers and insoluble polymers from acid-catalyzed conversion of sugars with varied structures. Carbohydrate Polymers, 2019, 216, 167-179.	10.2	23
63	Hydrogenation of fourteen biomass-derived phenolics in water and in methanol: their distinct reaction behaviours. Sustainable Energy and Fuels, 2018, 2, 751-758.	4.9	22
64	Steam reforming of acetic acid over nickel catalysts: Impacts of fourteen additives on the catalytic behaviors. Journal of the Energy Institute, 2020, 93, 1000-1019.	5.3	19
65	Pore diameters of Ni/ZrO2 catalysts affect properties of the coke in steam reforming of acetic acid. International Journal of Hydrogen Energy, 2021, 46, 23642-23657.	7.1	19
66	Pyrolysis of cellulose: Correlation of hydrophilicity with evolution of functionality of biochar. Science of the Total Environment, 2022, 825, 153959.	8.0	19
67	Cross-polymerisation between the model furans and carbohydrates in bio-oil with acid or alkaline catalysts. Journal of the Energy Institute, 2020, 93, 1678-1689.	5.3	18
68	The Inhibition Effect of Potassium Addition on Methane Formation in Steam Reforming of Acetic Acid over Alumina-supported Cobalt Catalysts. Chemistry Letters, 2008, 37, 614-615.	1.3	16
69	Nanocatalysts anchored on nanofiber support for high syngas production via methane partial oxidation. Applied Catalysis A: General, 2018, 565, 119-126.	4.3	16
70	Nanofibers and amorphous Ni/Al₂O₃ catalysts â€" effect of steric hindrance on hydrogenation performance. Catalysis Science and Technology, 2019, 9, 4510-4514.	4.1	16
71	Electrospun nanofibrous Ni/LaAlO3 catalysts for syngas production by high temperature methane partial oxidation. International Journal of Hydrogen Energy, 2022, 47, 3867-3875.	7.1	16
72	CO2 methanation over Ni/ZSM-5 catalysts: The effects of support morphology and La2O3 modification. Fuel, 2022, 324, 124679.	6.4	16

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73	CeO2-promotion of NiAl2O4 reduction via CeAlO3 formation for efficient methane reforming. Journal of the Energy Institute, 2020, 93, 991-999.	5.3	15
74	Catalyst experiencing distinct reaction histories in one reactor bed results in coke of different properties in steam reforming. Fuel, 2020, 269, 117427.	6.4	15
75	Steam reforming of acetone and isopropanol: Investigation of correlation of ketone and alcohol functional groups with properties of coke. Journal of the Energy Institute, 2022, 101, 32-44.	5.3	15
76	Correlations of Lewis acidic sites of nickel catalysts with the properties of the coke formed in steam reforming of acetic acid. Journal of the Energy Institute, 2022, 101, 277-289.	5.3	15
77	Steam reforming of alcohols and carboxylic acids: Importance of carboxyl and alcoholic hydroxyl groups on coke properties. Journal of the Energy Institute, 2021, 98, 85-97.	5.3	14
78	Cross-polymerization between the model furans and phenolics in bio-oil with acid or alkaline catalysts. Green Energy and Environment, 2021, 6, 138-149.	8.7	13
79	Impacts of residence time on transformation of reaction intermediates and coking behaviors of acetic acid during steam reforming. Journal of the Energy Institute, 2021, 95, 101-119.	5.3	13
80	Polymerization of sugars/furan model compounds and bio-oil during the acid-catalyzed conversion â€“ A review. Fuel Processing Technology, 2021, 222, 106958.	7.2	12
81	Comprehensive evaluation of hydro-liquefaction characteristics of lignocellulosic subcomponents. Journal of the Energy Institute, 2020, 93, 1705-1712.	5.3	11
82	Steam reforming of sugars: Roles of hydroxyl group and carbonyl group in coke formation. Fuel, 2021, 292, 120282.	6.4	11
83	Fibrous La2Zr2O7 pyrochlore-supported Ni nanocatalysts for methane reforming. Journal of Physics and Chemistry of Solids, 2020, 147, 109643.	4.0	10
84	Silica of varied pore sizes as supports of copper catalysts for hydrogenation of furfural and phenolics: Impacts of steric hindrance. International Journal of Hydrogen Energy, 2020, 45, 2720-2728.	7.1	9
85	Steam reforming of sugar and its derivatives: Functionality dictates thermal properties and morphologies of coke. Fuel, 2022, 307, 121798.	6.4	9
86	Modification of nickel-based catalyst with transition metals to tailor reaction intermediates and property of coke in steam reforming of acetic acid. Fuel, 2022, 318, 123698.	6.4	8
87	Sequential pyrolysis of coal and biomass: Influence of coal-derived volatiles on property of biochar. Applications in Energy and Combustion Science, 2022, 9, 100052.	1.5	7
88	Steam reforming of guaiacol and n-hexanol for production of hydrogen: Effects of aromatic and aliphatic structures on properties of the coke. Molecular Catalysis, 2022, 528, 112498.	2.0	3
89	Impacts of co-feeding alcohols on pyrolysis of cellulose. Journal of the Energy Institute, 2020, 93, 2474-2487.	5.3	0
90	Hydrothermal treatment of furfural and sugar monomers and oligomers: a model-compound approach to probe the cross-polymerization reactions in heating bio-oil. Biomass Conversion and Biorefinery, 2024, 14, 4729-4742.	4.6	0