

Wen Ju Wang

List of Publications by Year in descending order

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108
papers

2,155
citations

201575

27
h-index

276775

41
g-index

108
all docs

108
docs citations

108
times ranked

2245
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonradical activation of peroxydisulfate promoted by oxygen vacancy-laden NiO for catalytic phenol oxidative polymerization. <i>Applied Catalysis B: Environmental</i> , 2019, 254, 166-173.	10.8	107
2	A brief review for chemical looping combustion as a promising CO ₂ capture technology: Fundamentals and progress. <i>Science of the Total Environment</i> , 2021, 764, 142892.	3.9	105
3	Dry reforming of ethanol for hydrogen production: Thermodynamic investigation. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 5382-5389.	3.8	90
4	Thermodynamic analysis of hydrogen production via partial oxidation of ethanol. <i>International Journal of Hydrogen Energy</i> , 2008, 33, 5035-5044.	3.8	72
5	DFT study on pathways of steam reforming of ethanol under cold plasma conditions for hydrogen generation. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 1951-1956.	3.8	67
6	Thermodynamic analysis of steam reforming of ethanol for hydrogen generation. <i>International Journal of Energy Research</i> , 2008, 32, 1432-1443.	2.2	60
7	Highly Dispersed Metal Carbide on ZIF-derived Pyridinic-N-doped Carbon for CO ₂ Enrichment and Selective Hydrogenation. <i>ChemSusChem</i> , 2018, 11, 1040-1047.	3.6	59
8	Thermodynamic analysis of hydrogen production via glycerol steam reforming with CO ₂ adsorption. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 7768-7777.	3.8	54
9	Hydrogen production via sorption enhanced steam reforming of butanol: Thermodynamic analysis. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 2887-2895.	3.8	53
10	Catalytic steam reforming of in-situ tar from rice husk over MCM-41 supported LaNiO ₃ to produce hydrogen rich syngas. <i>Renewable Energy</i> , 2020, 161, 408-418.	4.3	51
11	CO ₂ and SO ₂ sorption on the alkali metals doped CaO(100) surface: A DFT-D study. <i>Applied Surface Science</i> , 2017, 425, 972-977.	3.1	49
12	Thermodynamic analysis of glycerol partial oxidation for hydrogen production. <i>Fuel Processing Technology</i> , 2010, 91, 1401-1408.	3.7	47
13	Heterogeneous Pd catalyst for mild solvent-free oxidation of benzyl alcohol. <i>Journal of Molecular Catalysis A</i> , 2016, 425, 61-67.	4.8	44
14	Activating peroxydisulfate by morphology-dependent NiO catalysts: Structural origin of different catalytic properties. <i>Applied Catalysis B: Environmental</i> , 2019, 256, 117806.	10.8	44
15	Optimization of a fluidized bed reactor for methane decomposition over Fe/Al ₂ O ₃ catalysts: Activity and regeneration studies. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 31700-31711.	3.8	43
16	A brief review of CO ₂ utilization for alkali carbonate gasification and biomass/coal co-gasification: Reactivity, products and process. <i>Journal of CO₂ Utilization</i> , 2021, 43, 101370.	3.3	41
17	Hydrogen-rich syngas production by chemical looping steam reforming of acetic acid as bio-oil model compound over Fe-doped LaNiO ₃ oxygen carriers. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 17732-17741.	3.8	40
18	Chemical looping steam reforming of bio-oil for hydrogen-rich syngas production: Effect of doping on LaNi _{0.8} Fe _{0.2} O ₃ perovskite. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 21123-21137.	3.8	38

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19	Production of hydrogen by ethanol steam reforming over nickel-metal oxide catalysts prepared via urea-nitrate combustion method. <i>International Journal of Energy Research</i> , 2011, 35, 501-506.	2.2	35
20	Solid-solid reaction of CuFe ₂ O ₄ with C in chemical looping system: A comprehensive study. <i>Fuel</i> , 2020, 267, 117163.	3.4	35
21	Accelerating charge transfer to enhance H ₂ evolution of defect-rich CoFe ₂ O ₄ by constructing a Schottky junction. <i>Chemical Communications</i> , 2020, 56, 14019-14022.	2.2	34
22	Hydrogen-rich gas production for solid oxide fuel cell (SOFC) via partial oxidation of butanol: Thermodynamic analysis. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 13280-13289.	3.8	33
23	Hydrogen-Rich Syngas Production from Chemical Looping Gasification of Biomass Char with CaMn _{1-x} Fe _x O ₃ . <i>Energy & Fuels</i> , 2018, 32, 9541-9550.	2.5	33
24	Yttrium-stabilized zirconia-promoted metallic nickel catalysts for the partial oxidation of methane to hydrogen. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 2252-2259.	3.8	31
25	Controlling oxygen vacancies through gas-assisted hydrothermal method and improving the capacitive properties of MnO ₂ nanowires. <i>Applied Surface Science</i> , 2019, 491, 24-31.	3.1	31
26	Production of Hydrogen by Steam Reforming of Bio-Ethanol Over Nickel-Copper Bimetallic Catalysts. <i>International Journal of Green Energy</i> , 2009, 6, 92-103.	2.1	28
27	A combined thermodynamic and experimental study on chemical-looping ethanol reforming with carbon dioxide capture for hydrogen generation. <i>International Journal of Energy Research</i> , 2013, 37, 25-34.	2.2	28
28	ATMP derived cobalt-metaphosphate complex as highly active catalyst for oxygen reduction reaction. <i>Journal of Catalysis</i> , 2020, 387, 129-137.	3.1	28
29	Mo-doped cobalt hydroxide nanosheets coupled with cobalt phosphide nanoarrays as bifunctional catalyst for efficient and high-stability overall water splitting. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 9915-9924.	3.8	28
30	Hydrogen production via dry reforming of butanol: Thermodynamic analysis. <i>Fuel</i> , 2011, 90, 1681-1688.	3.4	27
31	Ni-encapsulated graphene chainmail catalyst for ethanol steam reforming. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 6560-6572.	3.8	26
32	Efficient hydrogen production from ethanol steam reforming over layer-controlled graphene-encapsulated Ni catalysts. <i>Journal of Cleaner Production</i> , 2020, 252, 119907.	4.6	25
33	Chemical looping gasification of pyrolyzed biomass and coal char with copper ferrite as an oxygen carrier. <i>Journal of Renewable and Sustainable Energy</i> , 2018, 10, .	0.8	22
34	Yttria promoted metallic nickel catalysts for the partial oxidation of methane to synthesis gas. <i>Journal of Natural Gas Chemistry</i> , 2008, 17, 344-350.	1.8	21
35	Study on chemical looping reforming of ethanol (CLRE) for hydrogen production using NiMn ₂ O ₄ spinel as oxygen carrier. <i>Journal of the Energy Institute</i> , 2017, 90, 884-892.	2.7	21
36	Study of chemical looping co-gasification (CLCG) of coal and rice husk with an iron-based oxygen carrier via solid-solid reactions. <i>Journal of the Energy Institute</i> , 2019, 92, 382-390.	2.7	20

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37	Supercritical water synthesized Ni/ZrO ₂ catalyst for hydrogen production from supercritical water gasification of glycerol. International Journal of Hydrogen Energy, 2019, 44, 30917-30926.	3.8	19
38	Size effect of carbon black on the structure and mechanical properties of magnetorheological elastomers. Journal of Materials Science, 2019, 54, 1326-1340.	1.7	19
39	An ionic liquid as a green solvent for high potency synthesis of 2D covalent organic frameworks. New Journal of Chemistry, 2020, 44, 15410-15414.	1.4	19
40	Hydrogen-rich syngas production from chemical looping steam reforming of bio-oil model compound: Effect of bimetal on LaNi _{0.8} M _{0.2} O ₃ (M = Fe, Co, Cu, and Mn). International Journal of Energy Research, 2019, 43, 4534-4545.	2.2	18
41	Hydrogen production through glycerol steam reforming over beehive-biomimetic graphene-encapsulated nickel catalysts. Renewable Energy, 2020, 145, 2647-2657.	4.3	18
42	High-throughput chainmail catalyst FeCo@C nanoparticle for oxygen evolution reaction. International Journal of Hydrogen Energy, 2020, 45, 26574-26582.	3.8	18
43	Zirconia promoted metallic nickel catalysts for the partial oxidation of methane to synthesis gas. Catalysis Communications, 2009, 10, 940-944.	1.6	17
44	Higher alcohol synthesis from syngas over KCoMoP catalysts. Catalysis Communications, 2014, 51, 63-67.	1.6	17
45	Functionalized biomass-derived composites for solar vapor generation. Materials Research Express, 2019, 6, 125613.	0.8	17
46	A theoretical study of water adsorption and dissociation on Ni(111) surface during oxidative steam reforming and water gas shift processes. Journal of the Energy Institute, 2015, 88, 112-117.	2.7	16
47	Carbon disulfide (CS ₂) adsorption and dissociation on the Cu(100) surface: A quantum chemical study. Applied Surface Science, 2017, 414, 92-100.	3.1	16
48	Onion-like Core-shell Ni@C supported on carbon nanotubes decorated with low Pt as a superior electrocatalyst for hydrogen evolution reaction. Electrochimica Acta, 2021, 386, 138406.	2.6	16
49	O ₂ Release of Mn-Based Oxygen Carrier for Chemical Looping Air Separation (CLAS): An Insight into Kinetic Studies. Aerosol and Air Quality Research, 2016, 16, 453-463.	0.9	15
50	Efficient and stable supercritical-water-synthesized Ni-based catalysts for supercritical water gasification. Journal of Supercritical Fluids, 2020, 160, 104790.	1.6	15
51	Theoretical study of direct versus oxygen-assisted water dissociation on the Cu(110) surface. Applied Surface Science, 2015, 351, 846-852.	3.1	13
52	Synergetic Catalysis of Nickel Oxides with Oxygen Vacancies and Nickel Phosphide for the Highly Efficient Hydrodeoxygenation of Phenolic Compounds. ChemCatChem, 2018, 10, 2612-2619.	1.8	13
53	High active and easily prepared cobalt encapsulated in carbon nanotubes for hydrogen evolution reaction. International Journal of Hydrogen Energy, 2020, 45, 3948-3958.	3.8	13
54	Investigation of alkali metals addition on the catalytic activity of CuFe ₂ O ₄ for soot oxidation. Separation and Purification Technology, 2022, 283, 120224.	3.9	13

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55	First-Principles Modeling of Direct versus Oxygen-Assisted Water Dissociation on Fe(100) Surfaces. <i>Catalysts</i> , 2016, 6, 29.	1.6	12
56	An effect blending of acetone and acetic acid as bio-oil model compound for steam reforming reaction over Ce doped LaNi _{0.8} Fe _{0.2} O ₃ -based perovskite. <i>Biomass and Bioenergy</i> , 2021, 151, 106177.	2.9	12
57	Thermodynamic and experimental aspects on chemical looping reforming of ethanol for hydrogen production using a Cu-based oxygen carrier. <i>International Journal of Energy Research</i> , 2014, 38, 1192-1200.	2.2	11
58	Combined Carbon Dioxide Reforming with Steam Reforming of Ethanol for Hydrogen Production: Thermodynamic Analysis. <i>International Journal of Green Energy</i> , 2012, 9, 503-516.	2.1	10
59	Effect of carbon black with large particle size on dynamic mechanical analysis of magnetorheological elastomers (MREs). <i>Materials Research Express</i> , 2018, 5, 095703.	0.8	10
60	Study of crosslink structure and dynamic mechanical properties of magnetorheological elastomer: Effect of vulcanization system. <i>Journal of Intelligent Material Systems and Structures</i> , 2019, 30, 1189-1199.	1.4	10
61	Reduction mechanism study on sorption enhanced chemical looping gasification of biomass waste rice husk for H ₂ production over multi-functional Ni Ca ¹⁺ O particles. <i>Fuel Processing Technology</i> , 2020, 209, 106524.	3.7	10
62	Solar-driven steam generation on nitrogen-doped graphene in a 2D water path isolation system. <i>Materials Research Express</i> , 2020, 7, 015507.	0.8	10
63	Study of Co-pyrolysis Characteristics of Lignite and Rice Husk in a TGA and a Fixed-Bed Reactor. <i>International Journal of Chemical Reactor Engineering</i> , 2013, 11, 479-488.	0.6	9
64	Thermodynamic investigation on hydrogen production via self-sufficient chemical looping reforming of glycerol (CLRG) using metal oxide oxygen carriers. <i>Journal of the Energy Institute</i> , 2014, 87, 152-162.	2.7	9
65	Catalytic pyrolysis of rice husks for syngas production over Fe-based catalyst in a fixed-bed reactor. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2016, 38, 2190-2196.	1.2	9
66	Study of the crystal structure effect and mechanism during chemical looping gasification of coal. <i>Journal of the Energy Institute</i> , 2019, 92, 1284-1293.	2.7	9
67	The effect of alkali and alkaline earth metals oxides addition on oxygen uncoupling rate of copper-based oxygen carrier: A kinetic and experimental investigations. <i>Separation and Purification Technology</i> , 2021, 275, 119176.	3.9	9
68	A Simple, Scalable, Low-Cost Honeycomb-Like Carbonized Corncob for Highly Efficient Solar Steam Generation. <i>Advanced Sustainable Systems</i> , 2022, 6, .	2.7	9
69	Natural gas fuelled chemical looping reforming with carbon dioxide capture technology for hydrogen generation: thermodynamic investigation. <i>Journal of the Energy Institute</i> , 2011, 84, 94-101.	2.7	8
70	Hydrogen production via sorption enhanced chemical looping reforming of glycerol using Ni-based oxygen carrier and Ca-based sorbent: Theoretical and experimental study. <i>Korean Journal of Chemical Engineering</i> , 2014, 31, 230-239.	1.2	8
71	Performance and characteristics of continuous, fluidized bed pyrolysis of reed black liquor. <i>Separation and Purification Technology</i> , 2021, 254, 117573.	3.9	8
72	Stability and activity maintenance of Ni catalysts supported on La ⁺ , Ce ⁺ , and Mg ⁺ -promoted Al ₂ O ₃ and ZrO ₂ for H ₂ production from steam reforming of glycerol. <i>International Journal of Energy Research</i> , 2021, 45, 9369-9381.	2.2	8

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73	Theoretical study of ethanol partial oxidation for syngas production under cold plasma conditions. Journal of the Energy Institute, 2014, 87, 89-95.	2.7	7
74	The study of enhancement of magnetorheological effect based on natural rubber/thermoplastic elastomer SEBS hybrid matrix. Journal of Intelligent Material Systems and Structures, 2020, 31, 339-348.	1.4	7
75	Facile synthesis of ceramic SiC-based nanocomposites and the superior electrochemical lithiation/delithiation performances. Materials Chemistry and Physics, 2020, 243, 122618.	2.0	7
76	Syngas production from chemical looping reforming of ethanol over iron-based oxygen carriers: Theoretical analysis and experimental investigation. Chinese Journal of Chemical Engineering, 2021, 38, 123-131.	1.7	7
77	A Stable Fluorine-Containing Solid Electrolyte Interface toward Dendrite-Free Lithium-Metal Anode for Lithium-Sulfur Batteries. ChemElectroChem, 2021, 8, 1500-1506.	1.7	7
78	Insight into the Anchoring Effect of Two-Dimensional TiX ₂ (X = S, Se, Te) Materials for Lithium-Sulfur Batteries: A DFT Study. Journal of the Electrochemical Society, 2021, 168, 120516.	1.3	7
79	Steam reforming of ethanol to hydrogen over nickel metal catalysts. International Journal of Energy Research, 2010, 34, n/a-n/a.	2.2	6
80	Study on dynamic mechanical properties of magnetorheological elastomers based on natural rubber/thermoplastic elastomer hybrid matrix. Materials Research Express, 2018, 5, 115705.	0.8	6
81	Reinforcing Behaviors of Sulfur-Containing Silane Coupling Agent in Natural Rubber-Based Magnetorheological Elastomers with Various Vulcanization Systems. Materials, 2020, 13, 5163.	1.3	5
82	Study of chemical looping co-gasification of lignite and rice husk with Cu-Ni oxygen carrier. International Journal of Low-Carbon Technologies, 2021, 16, 1127-1134.	1.2	5
83	The effect of graphene-coating material (G-Fe) on the dynamic mechanical characteristics of magnetorheological elastomer (MRE). Applied Physics A: Materials Science and Processing, 2022, 128, .	1.1	5
84	Investigations on the properties of NH ₄ HCO ₃ -filled natural rubber based magnetorheological elastomers (MREs). Materials Research Express, 2018, 5, 045307.	0.8	4
85	The study of natural rubber/polybutadiene rubber hybrid matrix-based magnetorheological elastomer. Journal of Thermoplastic Composite Materials, 2019, , 089270571987822.	2.6	4
86	A Novel Magnetic Coupling to Construct Spiral Deposition of Lithium Ions for Improving Anode Performance of Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2021, 168, 030522.	1.3	4
87	Magnetic Control of Electrolyte Trapping Polysulfide for Enhanced Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2021, 168, 070510.	1.3	4
88	Adsorption of SO ₂ on pristine and defective single-walled MgO nanotubes: a dispersion-corrected density-functional theory (DFT-D) study. Materials Research Express, 2021, 8, 015023.	0.8	4
89	Density functional theory study of oxygen vacancy defect diffusion properties in $\text{Ir-Ta}_2\text{O}_5$. Japanese Journal of Applied Physics, 2020, 59, 121003.	0.8	4
90	Ru-substituted Co nanoalloys encapsulated within graphene as efficient electrocatalysts for accelerating water dissociation in alkaline solution. Applied Surface Science, 2022, 580, 152294.	3.1	4

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91	Effects of additives blended in corn straw to control agglomeration and slagging in combustion. <i>BioResources</i> , 2019, 14, 8963-8972.	0.5	4
92	Dynamic mechanical properties of FeSi alloy particles-filled magnetorheological elastomers. <i>Polymer-Plastics Technology and Materials</i> , 2019, 58, 1625-1637.	0.6	3
93	The dynamic mechanical properties of magnetorheological elastomer: Catalytic effect of carbonyl iron powder. <i>Journal of Intelligent Material Systems and Structures</i> , 2020, 31, 1567-1577.	1.4	3
94	Image Inpainting With Learnable Edge-Attention Maps. <i>IEEE Access</i> , 2021, 9, 3816-3827.	2.6	3
95	Exploring anchoring performance of defective MgO nanotubes for lithium-sulphur batteries: A density functional theory (DFT) study. <i>Canadian Journal of Chemical Engineering</i> , 2022, 100, 979-989.	0.9	3
96	Oxidation of soot promoted by Fe-based spinel catalysts. <i>Materials Research Express</i> , 2022, 9, 015502.	0.8	2
97	Enhanced soot oxidation by oxygen vacancies via K^+ doped CuFe_2O_4 spinel catalysts. <i>International Journal of Energy Research</i> , 2022, 46, 15376-15386.	2.2	2
98	Steam reforming of glycerol for syngas generation under cold plasma conditions: A DFT study. <i>International Journal of Green Energy</i> , 2016, 13, 1298-1304.	2.1	1
99	Steam reforming of ethanol for hydrogen production over sandwich-structured Fe@G@M catalysts (M=Fe, Ni and Co). <i>Materials Research Express</i> , 2019, 6, 105602.	0.8	1
100	Chemical looping co-gasification of lignite and rice husk for syngas generation with a Co decorated Cu-based oxygen carrier. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2020, , 1-12.	1.2	1
101	Study on the dynamic mechanical properties of magnetorheological elastomer (MRE) with Fe@C . <i>Journal of Intelligent Material Systems and Structures</i> , 2022, 33, 1115-1125.	1.4	1
102	Artificial three-dimensional inverse opal cathode host materials for lithium sulfur batteries. <i>Materials Chemistry and Physics</i> , 2022, 290, 126509.	2.0	1
103	A novel approach for fabricating adjustable zero field-modulus magnetorheological elastomer based on IPN matrix. <i>Materials Research Express</i> , 2019, 6, 105706.	0.8	0
104	Production of hydrogen and multi-walled carbon nanotubes by ethanol decomposition over Fe/CeO_2 catalysts. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 0, , 1-13.	1.2	0
105	The Study of Magnetorheological Elastomer Based on Natural Rubber (NR)/Thermoplastic Elastomer SEBS Hybrid Matrix: Experimental and Numerical Simulation. , 2019, , .		0
106	The Study of Magnetorheological Elastomer Based on Natural Rubber (NR)/Polybutadiene Rubber (BR) Hybrid Matrix: Experimental and Numerical Simulation. , 2019, , .		0
107	A study on the diffusion properties of oxygen in Al and W-doped Ta_2O_5 . <i>AIP Advances</i> , 2021, 11, 125302.	0.6	0
108	Suppressing the shuttle effect in lithium-sulphur batteries by defective single-walled ZnO nanotube: A DFT study. <i>Canadian Journal of Chemical Engineering</i> , 2023, 101, 347-353.	0.9	0