Biomass-based chemical looping technologies: the good

Energy and Environmental Science
10, 1885-1910
DOI: 10.1039/c6ee03718f

Citation Report

#	Article	IF	Citations
1	Chemically and physically robust, commercially-viable iron-based composite oxygen carriers sustainable over 3000 redox cycles at high temperatures for chemical looping applications. Energy and Environmental Science, 2017, 10, 2318-2323.	15.6	88
2	Integrating biomass pyrolysis with waste heat recovery from hot slags via extending the C-loops: Product yields and roles of slags. Energy, 2018, 149, 792-803.	4.5	23
3	A novel chemical looping partial oxidation process for thermochemical conversion of biomass to syngas. Applied Energy, 2018, 222, 119-131.	5.1	58
4	Advances in in situ and ex situ tar reforming with biochar catalysts for clean energy production. Sustainable Energy and Fuels, 2018, 2, 326-344.	2.5	73
5	Study on intrinsic reaction behavior and kinetics during reduction of iron ore pellets by utilization of biochar. Energy Conversion and Management, 2018, 158, 1-8.	4.4	35
6	Mechanism of lignite-to-pure syngas low temperature chemical looping gasification synergistic in situ S capture. Fuel, 2018, 222, 675-686.	3.4	26
7	Carbon Capture by Metal Oxides: Unleashing the Potential of the (111) Facet. Journal of the American Chemical Society, 2018, 140, 4736-4742.	6.6	83
8	Impact of fuel selection on the environmental performance of post-combustion calcium looping applied to a cement plant. Applied Energy, 2018, 210, 75-87.	5.1	38
9	A new approach to recycle oxalic acid during lignocellulose pretreatment for xylose production. Biotechnology for Biofuels, 2018, 11, 324.	6.2	37
10	Chemical looping gasification of pyrolyzed biomass and coal char with copper ferrite as an oxygen carrier. Journal of Renewable and Sustainable Energy, 2018, 10, .	0.8	22
11	Zirconia incorporated calcium looping absorbents with superior sintering resistance for carbon dioxide capture from in situ or ex situ processes. Sustainable Energy and Fuels, 2018, 2, 2733-2741.	2.5	23
12	Production and characterization of hybrid coal using sugar impurities extracted from pitch pine. Applied Thermal Engineering, 2018, 145, 174-183.	3.0	4
13	Spectroscopic Investigation of Thermochemical Depolymerization of Lignin Model Compounds in the Presence of Novel Liquidlike Nanoparticle Organic Hybrid Solvents for Efficient Biomass Valorization. Organic Process Research and Development, 2018, 22, 1723-1732.	1.3	12
14	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
15	Negative CO2 emissions through the use of biofuels in chemical looping technology: A review. Applied Energy, 2018, 232, 657-684.	5.1	166
16	Metal oxide redox chemistry for chemical looping processes. Nature Reviews Chemistry, 2018, 2, 349-364.	13.8	352
17	Catalytic reduction of Î±-pinene using Ru nanoparticles stabilized by modified carboxymethyl cellulose. Applied Surface Science, 2018, 453, 271-279.	3.1	18
18	Genetic algorithms and neural networks in optimization of sorbent enhanced H2 production in FB and CFB gasifiers. Energy Conversion and Management, 2018, 171, 1651-1661.	4.4	57

#	Article	IF	Citations
19	Review of reactor for chemical looping combustion of solid fuels. International Journal of Greenhouse Gas Control, 2018, 76, 92-110.	2.3	141
20	Perovskites as Geo-inspired Oxygen Storage Materials for Chemical Looping and Three-Way Catalysis: A Perspective. ACS Catalysis, 2018, 8, 8213-8236.	5.5	152
21	Enhanced hydrogen production from thermochemical processes. Energy and Environmental Science, 2018, 11, 2647-2672.	15.6	111
22	Analysis of Syngas Production from Biogas via the Tri-Reforming Process. Energies, 2018, 11, 1075.	1.6	19
23	A Combined Overview of Combustion, Pyrolysis, and Gasification of Biomass. Energy & Fuels, 2018, 32, 7294-7318.	2.5	153
24	Advanced Chemical Looping Materials for CO2 Utilization: A Review. Materials, 2018, 11, 1187.	1.3	85
25	Characteristics of a CaSO₄ composite oxygen carrier supported with an active material for in situ gasification chemical looping combustion of coal. RSC Advances, 2018, 8, 23372-23381.	1.7	6
26	Codensification of Eucommia ulmoides Oliver stem with pyrolysis oil and char for solid biofuel: An optimization and characterization study. Applied Energy, 2018, 223, 347-357.	5.1	32
27	Exploration of Capturing CO₂ from Flue Gas by Calcite Slitâ€Nanopores: A Computational Investigation. Energy Technology, 2018, 6, 1732-1738.	1.8	8
28	Techno-Economical Method for the Removal of Alkali Metals from Agricultural Residue and Herbaceous Biomass and Its Effect on Slagging and Fouling Behavior. ACS Sustainable Chemistry and Engineering, 2018, 6, 13056-13065.	3.2	32
29	Identifying iron-based oxygen carrier reduction during biomass chemical looping gasification on a thermogravimetric fixed-bed reactor. Applied Energy, 2018, 229, 404-412.	5.1	59
30	Nanoparticle-plant interaction: Implications in energy, environment, and agriculture. Environment International, 2018, 119, 1-19.	4.8	212
31	On a carbon-negative energy production scheme via a quadruple fluidized bed gasifier. Energy Conversion and Management, 2018, 171, 326-338.	4.4	8
32	Reaction Mechanism for Syngas Preparation by Lignite Chemical Looping Gasification Using Phosphogypsum Oxygen Carrier. Energy & Fuels, 2018, 32, 7857-7867.	2.5	27
33	Pyrolysis of wood pellets in the presence of oxygen carriers in a fluidised bed coupled with a DBD reactor for tar quantification. Chemical Engineering Journal, 2019, 355, 858-870.	6.6	13
34	Synthesis of Ru nanoparticles with hydroxyethyl cellulose as stabilizer for high-efficiency reduction of Î±-pinene. Cellulose, 2019, 26, 8059-8071.	2.4	3
35	Nickel-catalyzed intelligent reductive transformation of the aldehyde group using hydrogen. Green Chemistry, 2019, 21, 5828-5840.	4.6	23
36	Chemical Looping Hydrogen Generation over Ceria/Zirconia-Enhanced NiOâ€“NiFe₂O₄ Oxygen Carrier. Energy & Fuels, 2019, 33, 9149-9160.	2.5	6

#	Article	IF	Citations
37	Multi-function of oxygen carrier for in-situ tar removal in chemical looping gasification: Naphthalene as a model compound. Applied Energy, 2019, 253, 113502.	5.1	34
38	Influence of Synthesized Method on the Cycle Stability of NiO/NiAl2O4 during Chemical Looping Combustion of Biomass Pyrolysis Gas. Industrial & Engineering Chemistry Research, 2019, 58, 13163-13173.	1.8	11
39	Chemical looping gasification of lignocellulosic biomass with iron-based oxygen carrier: Products distribution and kinetic analysis on gaseous products from cellulose. Fuel Processing Technology, 2019, 193, 361-371.	3.7	49
40	110th Anniversary: Carbon Dioxide and Chemical Looping: Current Research Trends. Industrial & Engineering Chemistry Research, 2019, 58, 16235-16257.	1.8	39
41	Preparation of starch-based porous carbon electrode and biopolymer electrolyte for all solid-state electric double layer capacitor. Journal of Colloid and Interface Science, 2019, 554, 142-156.	5.0	68
42	Catalytic reforming of volatiles from co-pyrolysis of lignite blended with corn straw over three different structures of iron ores. Journal of Analytical and Applied Pyrolysis, 2019, 144, 104714.	2.6	92
43	CFD simulation of a fluidized bed reactor for biomass chemical looping gasification with continuous feedstock. Energy Conversion and Management, 2019, 201, 112143.	4.4	34
44	Synthesis of ethanol and its catalytic conversion. Advances in Catalysis, 2019, 64, 89-191.	0.1	13
45	Fractionation of biomass and plastic wastes to value-added products via stepwise pyrolysis: a state-of-art review. Reviews in Chemical Engineering, 2019, .	2.3	3
46	Hydrologic Shifts Create Complex Transient Distributions of Particulate Organic Carbon and Biogeochemical Responses in Beach Aquifers. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 3024-3038.	1.3	29
47	Comparative study of MxOy (Mâ€¯=â€¯Cu, Fe and Ni) supported on dolomite for syngas production via chemical looping reforming with toluene. Energy Conversion and Management, 2019, 199, 111937.	4.4	30
48	Iron oxide reduction by torrefied microalgae for CO2 capture and abatement in chemical-looping combustion. Energy, 2019, 186, 115903.	4.5	28
49	Enhanced carbon dioxide removal from coupled direct air captureâ€“bioenergy systems. Sustainable Energy and Fuels, 2019, 3, 3135-3146.	2.5	17
50	Thermodynamic and kinetic analysis of CuO-CaSO4 oxygen carrier in chemical looping gasification. Energy, 2019, 188, 116109.	4.5	19
51	A review of operating parameters affecting bio-oil yield in microwave pyrolysis of lignocellulosic biomass. Renewable and Sustainable Energy Reviews, 2019, 104, 328-336.	8.2	117
52	Achieving efficient and robust catalytic reforming on dual-sites of Cu species. Chemical Science, 2019, 10, 2578-2584.	3.7	56
53	Performance analysis of a biomass gasification-based CCHP system integrated with variable-effect LiBr-H2O absorption cooling and desiccant dehumidification. Energy, 2019, 176, 961-979.	4.5	29
54	Thermogravimetric Analysis and Isoconversional Kinetic Study of Biomass Pyrolysis Derived from Land, Coastal Zone, and Marine. Energy & Fuels, 2019, 33, 3299-3310.	2.5	23

#	Article	IF	Citations
55	A review of gasification of bio-oil for gas production. Sustainable Energy and Fuels, 2019, 3, 1600-1622.	2.5	28
56	Metal substituted pyrochlore phase Li_xLa_{2â^'x}Ce_{1.8}Ru_{0.2}O_{7â^'Î´} (x =) Tj ETQq1 1 0.784314 rgBT /C Science and Technology, 2019, 9, 1406-1419.	2.1	8
57	Ru-Catalyzed Hydrogenolysis of Lignin: Base-Dependent Tunability of Monomeric Phenols and Mechanistic Study. ACS Catalysis, 2019, 9, 4054-4064.	5.5	106
58	Plastic/rubber waste-templated carbide slag pellets for regenerable CO2 capture at elevated temperature. Applied Energy, 2019, 242, 919-930.	5.1	115
59	Numerical investigation and thermodynamic analysis of syngas production through chemical looping gasification using biomass as fuel. Fuel, 2019, 246, 466-475.	3.4	38
60	Operating Strategy of Chemical Looping Systems with Varied Reducer and Combustor Pressures. Industrial & Engineering Chemistry Research, 2019, 58, 5228-5235.	1.8	14
61	Synthesis of hierarchical Li4SiO4 nanoparticles/flakers composite from vermiculite/MCM-41 hybrid with improved CO2 capture performance under different CO2 concentrations. Chemical Engineering Journal, 2019, 371, 424-432.	6.6	20
62	The critical contribution of chemical engineering to a pathway to sustainability. Chemical Engineering Science, 2019, 203, 247-258.	1.9	18
63	Potentiality of biomass-nuclear hybrid system deployment scenario: Techno-economic feasibility perspective in South Korea. Energy, 2019, 175, 1038-1054.	4.5	5
64	Direct formation of hierarchically porous MgO-based sorbent bead for enhanced CO2 capture at intermediate temperatures. Chemical Engineering Journal, 2019, 371, 64-77.	6.6	47
65	Recent advances in lithium containing ceramic based sorbents for high-temperature CO₂ capture. Journal of Materials Chemistry A, 2019, 7, 7962-8005.	5.2	106
66	Catalysts for gasification: a review. Sustainable Energy and Fuels, 2019, 3, 656-672.	2.5	77
67	Chemodivergent hydrogenolysis of eucalyptus lignin with Ni@ZIF-8 catalyst. Green Chemistry, 2019, 21, 1498-1504.	4.6	65
68	Syngas production by chemical looping gasification using Fe supported on phosphogypsum compound oxygen carrier. Energy, 2019, 168, 126-135.	4.5	32
69	Catalytic Upgrading of Biomassâ€Derived Sugars with Acidic Nanoporous Materials: Structural Role in Carbonâ€Chain Length Variation. ChemSusChem, 2019, 12, 347-378.	3.6	30
70	Clathrate nanocage reactor for the decomposition of greenhouse gas. Chemical Engineering Journal, 2019, 359, 1629-1634.	6.6	28
71	Inert chemical looping conversion of biochar with iron ore as oxygen carrier: Products conversion kinetics and structural evolution. Bioresource Technology, 2019, 275, 53-60.	4.8	18
72	Chemical looping reforming of biomass based pyrolysis gas coupling with chemical looping hydrogen by using Fe/Ni/Al oxygen carriers derived from LDH precursors. Energy Conversion and Management, 2019, 179, 304-313.	4.4	38

#	Article	IF	Citations
73	Carbon-based materials reinforced waste activated sludge electro-dewatering for synchronous fuel treatment. Water Research, 2019, 149, 533-542.	5.3	42
74	Taskâ€Specific Catalyst Development for Ligninâ€First Biorefinery toward Hemicellulose Retention or Feedstock Extension. ChemSusChem, 2019, 12, 944-954.	3.6	25
75	Development of biochar-based nanocatalysts for tar cracking/reforming during biomass pyrolysis and gasification. Bioresource Technology, 2020, 298, 122263.	4.8	116
76	Lewis Acid and Base Catalysis of YNbO 4 Toward Aqueousâ€Phase Conversion of Hexose and Triose Sugars to Lactic Acid in Water. ChemCatChem, 2020, 12, 350-359.	1.8	18
77	H2 production from a plasma-assisted chemical looping system from the partial oxidation of CH4 at mild temperatures. Chemical Engineering Journal, 2020, 379, 122197.	6.6	20
78	Chemical looping gasification of biomass with Fe2O3/CaO as the oxygen carrier for hydrogen-enriched syngas production. Chemical Engineering Journal, 2020, 379, 122346.	6.6	165
79	Chemicalâ€Looping Conversion of Methane: A Review. Energy Technology, 2020, 8, 1900925.	1.8	87
80	Chemical looping oxidation of CH₄ with 99.5% CO selectivity over V₂O₃â€based redox materials using CO₂ for regeneration. AIChE Journal, 2020, 66, e16772.	1.8	18
81	Co-production of pure hydrogen, carbon dioxide and nitrogen in a 10 kW fixed-bed chemical looping system. Sustainable Energy and Fuels, 2020, 4, 1417-1426.	2.5	11
82	Chemical looping gasification of lignin with bimetallic oxygen carriers. International Journal of Greenhouse Gas Control, 2020, 93, 102897.	2.3	18
83	Unlocking the potential of BECCS with indigenous sources of biomass at a national scale. Sustainable Energy and Fuels, 2020, 4, 226-253.	2.5	21
84	Relationship between the physicochemical properties of sludge-based carbons and the adsorption capacity of dissolved organic matter in advanced wastewater treatment: Effects of chemical conditioning. Chemosphere, 2020, 243, 125333.	4.2	21
85	CeO2-modified CaO/Ca12Al14O33 bi-functional material for CO2 capture and H2 production in sorption-enhanced steam gasification of biomass. Energy, 2020, 192, 116664.	4.5	64
86	Thermal management for chemical looping systems with chemical production. Chemical Engineering Science, 2020, 214, 115431.	1.9	19
87	Thermodynamic equilibrium analysis of H2-rich syngas production via sorption-enhanced chemical looping biomass gasification. Renewable Energy, 2020, 153, 117-129.	4.3	27
88	Comparative Study on CO₂ Capture Performance of Prewashed Agricultural Waste-Templated, CaO-based Pellets Subjected to Different Regeneration Conditions. Energy & Fuels, 2020, 34, 12870-12879.	2.5	10
89	FeO controls the sintering of iron-based oxygen carriers in chemical looping CO2 conversion. Journal of CO2 Utilization, 2020, 40, 101216.	3.3	26
90	Barium aluminate improved iron ore for the chemical looping combustion of syngas. Applied Energy, 2020, 272, 115236.	5.1	29

#	Article	IF	Citations
91	Ca- and Mg-rich waste as high active carrier for chemical looping gasification of biomass. Chinese Journal of Chemical Engineering, 2021, 38, 145-154.	1.7	6
92	Solar-Driven Chemical Looping Methane Reforming Using ZnO Oxygen Carrier for Syngas and Zn Production in a Cavity-Type Solar Reactor. Catalysts, 2020, 10, 1356.	1.6	7
93	Chemical Looping with Oxygen Uncoupling of the Lignocellulosic Biomass Main Model Compound: Product Distribution and Kinetic Analysis on Lignin. Energy & Fuels, 2020, 34, 10968-10979.	2.5	12
94	Chemical looping catalytic gasification of biomass over active LaNi Fe1-O3 perovskites as functional oxygen carriers. Chinese Journal of Chemical Engineering, 2021, 36, 146-156.	1.7	20
95	Developing Oxygen Carriers for Chemical Looping Biomass Processing: Challenges and Opportunities. Advanced Sustainable Systems, 2020, 4, 2000099.	2.7	26
96	Interaction of Iron Oxygen Carriers and Alkaline Salts Present in Biomass-Derived Ash. Energy & Fuels, 2020, 34, 11143-11153.	2.5	15
97	Process integration of chemical looping combustion with oxygen uncoupling in a biomass-fired combined heat and power plant. Energy, 2020, 210, 118550.	4.5	26
98	Phenotyping a Diverse Collection of Forage Sorghum Genotypes for Chilling Tolerance. Agronomy, 2020, 10, 1074.	1.3	3
99	Alkaline thermal treatment of seaweed for high-purity hydrogen production with carbon capture and storage potential. Nature Communications, 2020, 11, 3783.	5.8	33
100	Highly stable CO2 capture performance of binary doped carbide slag synthesized through liquid precipitation method. Fuel, 2020, 280, 118575.	3.4	17
101	Optimization of bio-oil steam reforming process by thermodynamic analysis. International Journal of Hydrogen Energy, 2020, 45, 28350-28360.	3.8	13
102	Paving the Way for the Lignin Hydrogenolysis Mechanism by Deuterium-Incorporated Î²-O-4 Mimics. ACS Catalysis, 2020, 10, 12229-12238.	5.5	38
103	Highly efficient reduction of O2-containing CO2 via chemical looping based on perovskite nanocomposites. Nano Energy, 2020, 78, 105320.	8.2	32
104	Zeoliteâ€“Perovskite Composites as Effective Redox Catalysts for Autothermal Cracking of n-Hexane. ACS Sustainable Chemistry and Engineering, 2020, 8, 14268-14273.	3.2	13
105	Chlorine-promoted perovskite nanocomposite as a high-performance oxygen transfer agent for chemical looping methane-assisted CO2 splitting. Chemical Engineering Journal Advances, 2020, 4, 100052.	2.4	5
106	Applications of microwave energy in gas production and tar removal during biomass gasification. Sustainable Energy and Fuels, 2020, 4, 5927-5946.	2.5	23
107	Insight into the Fe2O3/CaO-based chemical looping process for biomass conversion. Bioresource Technology, 2020, 310, 123384.	4.8	22
108	Solar Biomass Gasification Combined With Iron Oxide Reduction for Syngas Production and Green Iron Metallurgy. Frontiers in Energy Research, 2020, 8, .	1.2	17

#	Article	IF	Citations
109	Biocatalytic reduction of Î±,Î²-unsaturated carboxylic acids to allylic alcohols. Green Chemistry, 2020, 22, 3927-3939.	4.6	14
110	Chemical looping deoxygenated gasification: An implication for efficient biomass utilization with high-quality syngas modulation and CO2 reduction. Energy Conversion and Management, 2020, 215, 112913.	4.4	36
111	Highâ€Throughput Analysis of Materials for Chemical Looping Processes. Advanced Energy Materials, 2020, 10, 2000685.	10.2	18
112	Review of Biomass Chemical Looping Gasification in China. Energy & Fuels, 2020, 34, 7847-7862.	2.5	91
113	Particle-resolved numerical study of the forced convection heat transfer characteristics of an endothermic-biomass particle placed in supercritical water crossflow. Renewable Energy, 2020, 158, 271-279.	4.3	17
114	Life cycle assessment of bio-based levoglucosan production from cotton straw through fast pyrolysis. Bioresource Technology, 2020, 307, 123179.	4.8	27
115	Life cycle assessment of sintering process for carbon footprint and cost reduction: A comparative study for coke and biomass-derived sintering process. Journal of Cleaner Production, 2020, 259, 120889.	4.6	28
116	Iron oxide supported on silicalite-1 as a multifunctional material for biomass chemical looping gasification and syngas upgrading. Chemical Engineering Journal, 2020, 401, 125943.	6.6	25
117	Prospects for bioenergy with carbon capture & storage (BECCS) in the United States pulp and paper industry. Energy and Environmental Science, 2020, 13, 2243-2261.	15.6	25
118	Production of H2-Rich Syngas From Lignocellulosic Biomass Using Microwave-Assisted Pyrolysis Coupled With Activated Carbon Enabled Reforming. Frontiers in Chemistry, 2020, 8, 3.	1.8	36
119	Efficient base-free oxidation of monosaccharide into sugar acid under mild conditions using hierarchical porous carbon supported gold catalysts. Green Chemistry, 2020, 22, 2588-2597.	4.6	23
120	Kinetic and thermodynamic analysis of iron oxide reduction by graphite for CO 2 mitigation in chemicalâ€looping combustion. International Journal of Energy Research, 2020, 44, 3865-3882.	2.2	15
121	Green and Functional Aerogels by Macromolecular and Textural Engineering of Chitosan Microspheres. Chemical Record, 2020, 20, 753-772.	2.9	42
122	Chemical looping beyond combustion â€“ a perspective. Energy and Environmental Science, 2020, 13, 772-804.	15.6	325
123	Chemical Looping Reforming of Glycerol for Continuous H2 Production by Moving-Bed Reactors: Simulation and Experiment. Energy & Fuels, 2020, 34, 1841-1850.	2.5	13
124	Hydrogen-rich syngas production with tar elimination via biomass chemical looping gasification (BCLG) using BaFe2O4/Al2O3 as oxygen carrier. Chemical Engineering Journal, 2020, 387, 124107.	6.6	74
125	Total utilization of lignin and carbohydrates in Eucalyptus grandis: an integrated biorefinery strategy towards phenolics, levulinic acid, and furfural. Biotechnology for Biofuels, 2020, 13, 2.	6.2	45
126	Influence of special water properties variation on the heat transfer of supercritical water flow around a sphere. Chemical Engineering Science, 2020, 222, 115698.	1.9	30

#	Article	IF	Citations
127	Environmental and economic assessment of torrefied wood pellets from British Columbia. Energy Conversion and Management, 2020, 208, 112513.	4.4	20
128	Co-generation of liquid biofuels from lignocellulose by integrated biochemical and hydrothermal liquefaction process. Energy, 2020, 200, 117524.	4.5	27
129	Chemical Looping Conversion of Gaseous and Liquid Fuels for Chemical Production: A Review. Energy & Fuels, 2020, 34, 5381-5413.	2.5	95
130	Syngas, tar and char behavior in chemical looping gasification of sawdust pellet in fluidized bed. Fuel, 2020, 270, 117464.	3.4	45
131	Tunable syngas production from two-stage sorption-enhanced steam gasification of sewage sludge. Chemical Engineering Journal, 2021, 404, 126069.	6.6	39
132	Biomass chemical looping gasification for syngas production using ilmenite as oxygen carrier in a 1.5 kWth unit. Chemical Engineering Journal, 2021, 405, 126679.	6.6	84
133	Energy and life cycle impact assessment for xylitol production from corncob. Journal of Cleaner Production, 2021, 278, 123217.	4.6	22
134	Combined ZnO reduction and methane reforming for co-production of pure Zn and syngas in a prototype solar thermochemical reactor. Fuel Processing Technology, 2021, 211, 106572.	3.7	17
135	Ca-enhanced hematite oxygen carriers for chemical looping reforming of biomass pyrolyzed gas coupled with CO2 splitting. Fuel, 2021, 285, 119125.	3.4	22
136	Oxygen carriers from incineration bottom ash for chemical looping combustion of syngas: Effect of composition on combustion efficiency. Chemical Engineering Journal, 2021, 405, 127068.	6.6	16
137	Biorefinery roadmap based on catalytic production and upgrading 5-hydroxymethylfurfural. Green Chemistry, 2021, 23, 119-231.	4.6	223
138	Reaction performance of Ce-enhanced hematite oxygen carrier in chemical looping reforming of biomass pyrolyzed gas coupled with CO2 splitting. Energy, 2021, 215, 119044.	4.5	24
139	Syngas preparation by NiOâ€“CaSO4-based oxygen carrier from chemical looping gasification technology. Journal of the Energy Institute, 2021, 94, 191-198.	2.7	17
140	Alkali metal modified ironâ€nickel oxygen carrier to produce hydrogenâ€rich synthesis gas by chemical looping gasification with pine sawdust. International Journal of Energy Research, 2021, 45, 5165-5176.	2.2	7
141	Recent Advances of Oxygen Carriers for Chemical Looping Reforming of Methane. ChemCatChem, 2021, 13, 1615-1637.	1.8	32
142	Chemical looping gasification of sewage sludge using copper slag modified by NiO as an oxygen carrier. Chinese Journal of Chemical Engineering, 2021, 29, 335-343.	1.7	15
143	Study on <scp> CO ₂ </scp> gasification kinetics of biomass char based on pore structure analysis: Theoretical modelling of structural parameter Ï in random pore model. International Journal of Energy Research, 2021, 45, 4429-4442.	2.2	6
144	Thermochemical conversion of sewage sludge for energy and resource recovery: technical challenges and prospects. Environmental Pollutants and Bioavailability, 2021, 33, 145-163.	1.3	43

#	Article	IF	Citations
145	Solar-assisted fabrication of large-scale, patternable transparent wood. Science Advances, 2021, 7, .	4.7	107
146	Electrical conductivity of beech sawdust using graphite catalytic coating: unlocking the microwave-assisted thermolysis efficiency of lignocellulosic biomass. Sustainable Energy and Fuels, 2021, 5, 3895-3905.	2.5	2
147	CaCl₂ molten salt hydrate-promoted conversion of carbohydrates to 5-hydroxymethylfurfural: an experimental and theoretical study. Green Chemistry, 2021, 23, 2058-2068.	4.6	19
148	Promoted calcium looping <scp> H ₂ </scp> production via catalytic reforming of polycyclic aromatic hydrocarbon using a synthesized <scp> CO ₂ </scp> absorbent prepared by impregnation. International Journal of Energy Research, 2021, 45, 10409-10424.	2.2	6
149	Enhanced and environment-friendly chemical looping gasification of crop straw using red mud as a sinter-resistant oxygen carrier. Waste Management, 2021, 121, 354-364.	3.7	43
150	Intensification of Chemical Looping Processes by Catalyst Assistance and Combination. Catalysts, 2021, 11, 266.	1.6	7
151	Hydrocracking, hydrogenation and isomerization of model biomass tar in a packed bed reactor over bimetallic NiMo zeolite catalysts: Tailoring structure/acidity. Applied Catalysis A: General, 2021, 612, 118004.	2.2	31
152	Evaluation and control of the adhesiveness of cohesive calcium carbonate particles at high temperatures. Advanced Powder Technology, 2021, 32, 283-289.	2.0	8
153	Design of a 1 MWth Pilot Plant for Chemical Looping Gasification of Biogenic Residues. Energies, 2021, 14, 2581.	1.6	26
154	Zeolite-assisted core-shell redox catalysts for efficient light olefin production via cyclohexane redox oxidative cracking. Chemical Engineering Journal, 2021, 409, 128192.	6.6	17
155	Nox formation in fixed-bed biomass combustion: Chemistry and modeling. Fuel, 2021, 290, 119694.	3.4	15
156	Chemical looping gasification of Chlorella: Parametric optimization, reaction mechanisms, and nitrogen-containing pollutants emission. Fuel, 2021, 289, 119987.	3.4	19
157	Chemical looping gasification of high nitrogen wood waste using a copper slag oxygen carrier modified by alkali and alkaline earth metals. Chemical Engineering Journal, 2021, 410, 128344.	6.6	17
158	Characteristic Study of Briquette Cyanobacteria as Fuel in Chemical Looping Combustion with Hematite as Oxygen Carrier. Applied Sciences (Switzerland), 2021, 11, 4388.	1.3	2
159	Physicochemical Characterisation and the Prospects of Biofuel Production from Rubberwood Sawdust and Sewage Sludge. Sustainability, 2021, 13, 5942.	1.6	13
160	Comparative Study: Impacts of Ca and Mg Salts on Iron Oxygen Carriers in Chemical Looping Combustion of Biomass. ACS Omega, 2021, 6, 16649-16660.	1.6	11
161	Furan monomers and polymers from renewable plant biomass. Russian Chemical Reviews, 2021, 90, 750-784.	2.5	35
162	Chemical looping staged conversion of microalgae with calcium ferrite as oxygen carrier: Pyrolysis and gasification characteristics. Journal of Analytical and Applied Pyrolysis, 2021, 156, 105129.	2.6	8

#	Article	IF	Citations
163	Characterization of copper (II) chemical forms and heavy metal distribution in chemical looping gasification of municipal solid waste. Journal of the Energy Institute, 2021, 96, 140-147.	2.7	8
164	An evaluation of the reactivity of synthetic Fe-Ni oxygen carriers: CO oxidation, H2O reforming, and toluene cracking. Energy Conversion and Management, 2021, 240, 114263.	4.4	13
165	Chemical looping gasification of torrefied woodchips in a bubbling fluidized bed test rig using iron-based oxygen carriers. Renewable Energy, 2021, 172, 34-45.	4.3	21
166	Techno-economic analysis of processes with integration of fluidized bed heat exchangers for H2 production â€“ Part 2: Chemical-looping combustion. International Journal of Hydrogen Energy, 2021, 46, 25355-25375.	3.8	14
167	Co-production of upgraded bio-oils and H2-rich gas from microalgae via chemical looping pyrolysis. International Journal of Hydrogen Energy, 2021, 46, 24942-24955.	3.8	9
168	Biomass-Based Chemical Looping Gasification: Overview and Recent Developments. Applied Sciences (Switzerland), 2021, 11, 7069.	1.3	38
169	Production of hydrogen-rich syngas from absorption-enhanced steam gasification of biomass with conch shell-based absorbents. International Journal of Hydrogen Energy, 2021, 46, 24956-24964.	3.8	18
170	Syngas Production in a 1.5 kW_{th} Biomass Chemical Looping Gasification Unit Using Fe and Mn Ores as the Oxygen Carrier. Energy & Fuels, 2021, 35, 17182-17196.	2.5	30
171	Assessment of the Redox Characteristics of Iron Ore by Introducing Biomass Ash in the Chemical Looping Combustion Process: Biomass Ash Type, Constituent, and Operating Parameters. ACS Omega, 2021, 6, 21676-21689.	1.6	7
172	Biogas upgrading, economy and utilization: a review. Environmental Chemistry Letters, 2021, 19, 4137-4164.	8.3	71
173	Thermodynamic analysis of hydrogen production from carbide slag used as oxygen carrier, hydrogen carrier and in-situ carbon capture agent during the gasification of lignite. Energy Conversion and Management, 2021, 244, 114456.	4.4	14
174	Progress in thermodynamic simulation and system optimization of pyrolysis and gasification of biomass. Green Chemical Engineering, 2021, 2, 266-283.	3.3	29
175	Calcium looping post-combustion CO2 capture in sugarcane bagasse fuelled power plants. International Journal of Greenhouse Gas Control, 2021, 110, 103401.	2.3	8
176	Integration of biomasses gasification and renewable-energies-driven water electrolysis for methane production. Energy, 2021, 230, 120863.	4.5	22
177	Environmental impact comparison of wheat straw fast pyrolysis systems with different hydrogen production processes based on life cycle assessment. Waste Management and Research, 2021, , 0734242X2110450.	2.2	4
178	State of Scale-Up Development in Chemical Looping Technology for Biomass Conversions: A Review and Perspectives. Waste and Biomass Valorization, 2022, 13, 1363-1383.	1.8	13
179	Thermodynamic analysis of a tri-generation system driven by biomass direct chemical looping combustion process. Energy Conversion and Management, 2021, 244, 114517.	4.4	16
180	Evaluation of life cycle energy, economy and CO2 emissions for biomass chemical looping gasification to power generation. Renewable Energy, 2021, 176, 366-387.	4.3	41

#	Article	IF	Citations
181	Mechanical strength evolution of biomass pellet during chemical looping gasification in fluidized bed. Fuel Processing Technology, 2021, 221, 106951.	3.7	6
182	Catalytic hydrogenolysis of castor seeds C-lignin in deep eutectic solvents. Industrial Crops and Products, 2021, 169, 113666.	2.5	22
183	Comparative thermodynamic and techno-economic assessment of green methanol production from biomass through direct chemical looping processes. Journal of Cleaner Production, 2021, 321, 129023.	4.6	53
184	Hydrogen production from biomasses and wastes: A technological review. International Journal of Hydrogen Energy, 2021, 46, 33756-33781.	3.8	125
185	Evaluation of the CO2 gasification of residual char under a regeneration atmosphere via calciumâ€'based chemical looping gasification. Chemical Engineering and Processing: Process Intensification, 2021, 168, 108564.	1.8	2
186	Gasification investigations of coal and biomass blends for high purity H2 production with carbon capture potential. Journal of Industrial and Engineering Chemistry, 2021, 103, 42-48.	2.9	6
187	Catalytic hydrothermal carbonization of pomelo peel for enhanced combustibility of coal/hydrochar blends and reduced CO2 emission. Fuel, 2021, 304, 121422.	3.4	39
188	Numerical study on the effective utilization of high sulfur petroleum coke for syngas production via chemical looping gasification. Energy, 2021, 235, 121395.	4.5	14
189	Numerical investigation of heat transfer characteristics between two particles and supercritical water. Journal of Supercritical Fluids, 2021, 177, 105327.	1.6	9
190	The effect of alkali and alkaline earth metals oxides addition on oxygen uncoupling rate of copper-based oxygen carrier: A kinetic and experimental investigations. Separation and Purification Technology, 2021, 275, 119176.	3.9	9
191	Thermodynamic evaluation and modelling of an auto-thermal hybrid system of chemical looping combustion and air separation for power generation coupling with CO2 cycles. Energy, 2021, 236, 121431.	4.5	13
192	Regeneration mechanism of CuO-CaSO4 based oxygen carriers. Fuel, 2021, 306, 121668.	3.4	4
193	Exploring the migration and transformation of lattice oxygen during chemical looping with NiFe2O4 oxygen carrier. Chemical Engineering Journal, 2022, 429, 132064.	6.6	63
194	The crucial role of deoxygenation in syngas refinement and carbon dioxide utilization during chemical looping-based biomass gasification. Chemical Engineering Journal, 2022, 428, 132068.	6.6	40
195	The effect of particle wake on the heat transfer characteristics between interactive particles in supercritical water. Chemical Engineering Science, 2022, 247, 117030.	1.9	27
196	Ash transformation mechanism during combustion of rice husk and rice straw. Fuel, 2022, 307, 121768.	3.4	41
197	Optimization of the Process of Obtaining Ethanol-Lignin from Abies Bark (Abies Sibirica). Lecture Notes in Networks and Systems, 2021, , 363-368.	0.5	0
198	Chemical looping conversion of biomass and biomass-derived feedstocks. , 2021, , 87-136.		1

#	Article	IF	Citations
199	The thermodynamic evaluation and process simulation of the chemical looping steam methane reforming of mixed iron oxides. RSC Advances, 2021, 11, 684-699.	1.7	4
200	Theoretical and experimental study of guar gum sulfation. Journal of Molecular Modeling, 2021, 27, 5.	0.8	59
201	Earth-abundant 3d-transition-metal catalysts for lignocellulosic biomass conversion. Chemical Society Reviews, 2021, 50, 6042-6093.	18.7	104
202	Sustainability evaluation of biomass direct gasification using chemical looping technology for power generation with and w/o CO2 capture. Energy, 2020, 205, 117904.	4.5	39
203	A critical review on the influence of process parameters in catalytic co-gasification: Current performance and challenges for a future prospectus. Renewable and Sustainable Energy Reviews, 2020, 134, 110382.	8.2	53
204	Combustion of Biomass in Fluidized Beds: A Review of Key Phenomena and Future Perspectives. Energy & Fuels, 2021, 35, 16303-16334.	2.5	21
205	Hydrothermal carbonization and liquefaction for sustainable production of hydrochar and aromatics. Renewable and Sustainable Energy Reviews, 2021, 152, 111722.	8.2	86
206	Biomass pyrolysis system based on life cycle assessment and Aspen plus analysis and kinetic modeling. , 2022, , 35-71.		2
207	Variation of gas composition and energy utilization in biomass CLG process with Fe and Ca oxides through thermodynamic simulation. Fuel, 2022, 310, 122433.	3.4	1
208	Effect of H2S presence on chemical looping reforming (CLR) of biogas with a firebrick supported NiO oxygen carrier. Fuel Processing Technology, 2022, 226, 107088.	3.7	20
209	A novel system of biomass for the generation of inherently separated syngas by combining chemical looping CO2-gasification and steam reforming process. Energy Conversion and Management, 2022, 251, 114876.	4.4	11
210	Fractionation of Birch Wood by Integrating Alkaline-Acid Treatments and Hydrogenation in Ethanol over a Bifunctional Ruthenium Catalyst. Catalysts, 2021, 11, 1362.	1.6	6
211	Effect of support on hydrogen generation over iron oxides in the chemical looping process. RSC Advances, 2021, 11, 37552-37558.	1.7	2
212	Pretreated residual biomasses in fluidized beds for chemical looping Gasification: Experimental devolatilizations and characterization of ashes behavior. Bioresource Technology, 2022, 345, 126514.	4.8	10
213	Modeling and multi-objective optimization of microalgae biomass production and CO2 biofixation using hybrid intelligence approaches. Renewable and Sustainable Energy Reviews, 2022, 157, 112016.	8.2	22
214	Thermodynamic evaluation on chemical looping conversion of Cd- and Zn-contained phytoremediation plant with different CaO pathways. Chemosphere, 2022, 292, 133433.	4.2	3
215	The Reaction Characteristics and Mechanism of Pine Sawdust Chemical-Looping Gasification Based on CoFe ₂O ₄ Oxygen Carrier. SSRN Electronic Journal, 0, , .	0.4	0
216	Study on the redox performance of Cu and <scp> Ceâ€doped CoFe ₂ O ₄ </scp> as oxygen carriers for chemical looping hydrogen generation. International Journal of Energy Research, 2022, 46, 7424-7440.	2.2	5

#	Article	IF	Citations
217	Chemical looping mechanisms for sequestration of greenhouse gases for biofuel and biomaterials. , 2022, , 85-109.		0
218	Modified Cellulose with BINAP-Supported Rh as an Efficient Heterogeneous Catalyst for Asymmetric Hydrogenation. Catalysts, 2022, 12, 83.	1.6	5
219	Catalytic Sulfation of Betulin with Sulfamic Acid: Experiment and DFT Calculation. International Journal of Molecular Sciences, 2022, 23, 1602.	1.8	12
220	Dioxin Formation in Biomass Gasification: A Review. Energies, 2022, 15, 700.	1.6	13
221	Inhibited grain growth to strengthen the redox performance of CuFe2O4 via SiO2 as a support for the chemical looping gasification. Journal of Materials Research and Technology, 2022, 17, 1302-1310.	2.6	6
223	Emissions of nitrogenous pollutants in chemical looping gasification of high nitrogen wood waste using a K-modified copper slag oxygen carrier. Journal of Thermal Analysis and Calorimetry, 2022, 147, 9725-9735.	2.0	3
224	Selective catalytic oxidation of ammonia to nitric oxide via chemical looping. Nature Communications, 2022, 13, 718.	5.8	18
225	Controlling the Reaction Microenvironments Through an Embedding Strategy to Strengthen the Chemical Looping Reforming of Biomass Volatile Based on Decoupling Process. SSRN Electronic Journal, 0, , .	0.4	0
226	Application of sugar-containing biomass: one-step synthesis of 2-furylglyoxylic acid and its derivatives from a vitamin C precursor. Green Chemistry, 2022, 24, 2000-2009.	4.6	2
227	Should residual biomass be used for fuels, power and heat, or materials? Assessing costs and environmental impacts for China in 2035. Energy and Environmental Science, 2022, 15, 1950-1966.	15.6	18
228	Deoxygenation-enhanced chemical looping gasification: a new pathway to produce hydrogen from biomass. Green Chemistry, 2022, 24, 2613-2623.	4.6	17
229	Hydrogen production from autothermal CO2 gasification of cellulose in a fixed-bed reactor: Influence of thermal compensation from CaO carbonation. International Journal of Hydrogen Energy, 2022, 47, 41480-41487.	3.8	6
230	Effects of Temperature, Operation Mode, and Steam Concentration on Alkali Release in Chemical Looping Conversion of Biomassâ”€Experimental Investigation in a 10 kW_{th} Pilot. Energy & Fuels, 2022, 36, 9551-9570.	2.5	12
231	Fractionation of birch wood biomass into valuable chemicals by the extraction and catalytic processes. Biomass Conversion and Biorefinery, 2024, 14, 2341-2355.	2.9	5
233	Sorption-enhanced steam gasification of woody biomass assisted by Ca/Na/FS (fine slag) composite sorbents. International Journal of Hydrogen Energy, 2022, 47, 12528-12538.	3.8	7
234	New reactions of betulin with sulfamic acid and ammonium sulfamate in the presence of solid catalysts. Biomass Conversion and Biorefinery, 2024, 14, 4245-4256.	2.9	20
235	Thermal plasma-aided chemical looping carbon dioxide dissociation for fuel production from aluminium particles. Energy Conversion and Management, 2022, 257, 115413.	4.4	6
236	CO2-negative biomass conversion: An economic route with co-production of green hydrogen and highly porous carbon. Applied Energy, 2022, 311, 118685.	5.1	14

#	Article	IF	Citations
237	Characteristics of steel slag as an oxygen carrier for chemical looping gasification of sewage sludge. Energy, 2022, 247, 123534.	4.5	5
238	Recent development of biomass gasification for H2 rich gas production. Applications in Energy and Combustion Science, 2022, 10, 100059.	0.9	21
239	Insights into the micro-structures and reactive behaviors of coal vitrinite and inertinite macerals with CuFe2O4 in chemical looping combustion. Sustainable Energy Technologies and Assessments, 2022, 52, 102164.	1.7	2
240	Understandings of Catalyst Deactivation and Regeneration during Biomass Tar Reforming: A Crucial Review. ACS Sustainable Chemistry and Engineering, 2021, 9, 17186-17206.	3.2	26
241	Carbon capture for decarbonisation of energy-intensive industries: a comparative review of techno-economic feasibility of solid looping cycles. Frontiers of Chemical Science and Engineering, 2022, 16, 1291-1317.	2.3	11
242	Effect of steam addition for energy saving during CaCO3 calcination of auto thermal biomass gasification. Biomass and Bioenergy, 2022, 161, 106416.	2.9	6
243	Revealing the Reactivity of Individual Chemical Entities in Complex Mixtures: the Chemistry Behind Bio-Oil Upgrading. Analytical Chemistry, 2022, 94, 7536-7544.	3.2	5
244	Circular economy-based environmental management using biochar: Driving towards sustainability. Chemical Engineering Research and Design, 2022, 163, 585-600.	2.7	33
245	Particle adhesion induced by calcium carbonate nanoparticles at 900 Â°C. Powder Technology, 2022, 405, 117514.	2.1	4
246	Alkali Emissions Characterization in Chemical Looping Combustion of Wood, Wood Char, and Straw Fuels. SSRN Electronic Journal, 0, , .	0.4	0
247	Separate H ₂ and CO production from CH ₄ â€CO ₂ cycling of Feâ€Ni. AICHE Journal, 0, , .	1.8	3
248	Evaluation of Different Oxygen Carriers for Chemical Looping Reforming of Toluene as Tar Model Compound in Biomass Gasification Gas: A Thermodynamic Analysis. Atmosphere, 2022, 13, 887.	1.0	0
249	Sustainable and Highly Efficient Recycling of Plastic Waste into Syngas via a Chemical Looping Scheme. Environmental Science & Technology, 2022, 56, 8953-8963.	4.6	15
250	Biomass template method for preparing macroporous nickel foam with tunable pore size and porosity. Materials Letters, 2022, 323, 132540.	1.3	1
251	Mn-doped Ca2Fe2O5 oxygen carrier for chemical looping gasification of biogas residue: Effect of oxygen uncoupling. Chemical Engineering Journal, 2022, 446, 137086.	6.6	13
252	Controlling the reaction microenvironments through an embedding strategy to strengthen the chemical looping reforming of methane based on decoupling process. Chemical Engineering Journal, 2022, 446, 137061.	6.6	2
253	MP-PIC Simulation of Biomass Steam Gasification Using Ilmenite as an Oxygen Carrier. Atmosphere, 2022, 13, 1009.	1.0	3
254	Evolution of kraft lignin during hydrothermal treatment under different reaction conditions. Journal of the Energy Institute, 2022, 103, 147-153.	2.7	21

#	Article	IF	Citations
255	Performance evaluation of rare earth (La, Ce and Y) modified CoFe2O4 oxygen carriers in chemical looping hydrogen generation from hydrogen-rich syngas. Fuel, 2022, 326, 124933.	3.4	7
256	Review of chemical looping process for carbonaceous feedstock Conversion: Rational design of oxygen carriers. Fuel, 2022, 325, 124964.	3.4	13
257	Chemical bond conversion directly drives power generation on the surface of graphdiyne. Matter, 2022, 5, 2933-2945.	5.0	10
258	Thermogravimetric kinetic analysis of the <scp>Ceâ€Zr</scp> composite oxygen carrier prepared by ball milling. Canadian Journal of Chemical Engineering, 2023, 101, 1602-1612.	0.9	0
259	The reaction characteristics and mechanism of pine sawdust chemical-looping gasification based on CoFe2O4 oxygen carrier. Renewable Energy, 2022, 195, 1300-1309.	4.3	3
260	Reaction characteristics of Shenmu coal pyrolysis volatiles with an iron-based oxygen carrier in a two-stage fixed-bed reactor. Fuel Processing Technology, 2022, 235, 107371.	3.7	2
261	Chemical looping reforming of toluene via Fe2O3@SBA-15 based on controlling reaction microenvironments. Fuel, 2022, 326, 125024.	3.4	11
262	Sustainable biopolyol production via solvothermal liquefaction silvergrass saccharification residue: Experimental, economic, and environmental approach. Science of the Total Environment, 2022, 847, 157668.	3.9	6
263	Mechanistic study on the depolymerization of typical lignin-derived oligomers catalyzed by Pd/NbOPO4. Molecular Catalysis, 2022, 528, 112500.	1.0	4
264	Overview of Fluidized Bed Reactor Modeling for Chemical Looping Combustion: Status and Research Needs. Energy & Fuels, 2022, 36, 9385-9409.	2.5	9
265	Biomass chemical looping gasification for high-quality syngas: A critical review and technological outlooks. Energy Conversion and Management, 2022, 268, 116020.	4.4	42
266	Biomass-derived polyols valorization towards glycolic acid production with high atom-economy. Applied Catalysis B: Environmental, 2022, 317, 121785.	10.8	8
267	Hydrogen-rich syngas production form biomass char by chemical looping gasification with Fe/Ca-based oxygen carrier. Separation and Purification Technology, 2022, 300, 121912.	3.9	16
268	Carbon-negative hydrogen from biomass using gas switching integrated gasification: Techno-economic assessment. Energy Conversion and Management, 2022, 270, 116248.	4.4	9
269	Hydrogen production by organic waste chemical looping gasification (OW-CLG) enhanced by V2O3 catalysed reforming via partial oxidation approach. Industrial Crops and Products, 2022, 187, 115544.	2.5	0
270	Theoretical insights into the oxygen supply performance of Î±-Fe2O3 in the chemical-looping reforming of methane. Chemical Engineering Science, 2022, 262, 118041.	1.9	6
271	Investigation of modifying anti-sintering and oxygen uncoupling performance of CuO/TiO2 by MgO addition: Novel oxygen carrier. Separation and Purification Technology, 2022, 302, 122136.	3.9	5
272	Comprehensive effects of different inorganic elements on initial biomass char-CO2 gasification reactivity in micro fluidised bed reactor: Theoretical modeling and experiment analysis. Energy, 2023, 262, 125379.	4.5	4

#	Article	IF	Citations
273	Specific chemical adsorption of selected divalent heavy metal ions onto hydrous Î³-Fe2O3-biochar from dilute aqueous solutions with pH as a master variable. Chemical Engineering Journal, 2023, 451, 138921.	6.6	43
274	Waste utilization of sewage sludge and red mud based on chemical looping catalytic oxidation. Fuel, 2023, 332, 125990.	3.4	4
275	A new breakthrough in the P recovery from sewage sludge ash by thermochemical processes. Green Chemistry, 2022, 24, 6836-6839.	4.6	1
276	A hemicellulose and lignin-first process for corn stover valorization catalyzed by aluminum sulfate in Î³-butyrolactone/water co-solvent. Green Chemistry, 2022, 24, 7429-7441.	4.6	3
277	Effects of oxidative torrefaction conditions on the biomass liquid chemical looping reaction from the perspective of thermal behavior and kinetic analysis. Fuel, 2023, 331, 125924.	3.4	6
278	Chemical looping partial oxidation (CLPO) of toluene on LaFeO3 perovskites for tunable syngas production. Chemical Engineering Journal, 2023, 451, 138968.	6.6	8
279	Application of the magnetic material in incineration bottom ash as oxygen carrier for biomass chemical looping gasification. Chemical Engineering Journal, 2023, 452, 138935.	6.6	3
280	Quality of gaseous biofuels: Statistical assessment and guidance on production technologies. Renewable and Sustainable Energy Reviews, 2022, 169, 112959.	8.2	7
281	Bioenergy with Carbon Capture and Storage (BECCS) developed by coupling a Pressurised Chemical Looping combustor with a turbo expander: How to optimize plant efficiency. Renewable and Sustainable Energy Reviews, 2022, 169, 112851.	8.2	5
282	A Concise Review on the Synthesis, and Characterization of the Pyrolytic Lignocellulosic Biomass for Oil, Char and Gas Production: Recent Advances and its Environmental Application. Chemistry Africa, 0, , .	1.2	1
283	Simultaneous in-situ tar abatement and H2-enriched syngas production via heterogeneous doping of LaFeO3 during chemical looping gasification of microalgae. Biomass and Bioenergy, 2022, 167, 106645.	2.9	3
284	A comprehensive review on biomass humification: Recent advances in pathways, challenges, new applications, and perspectives. Renewable and Sustainable Energy Reviews, 2022, 170, 112984.	8.2	32
285	Attrition and attrition-resistance of oxygen carrier in chemical looping process â€“ A comprehensive review. Fuel, 2023, 333, 126304.	3.4	13
286	Accelerated and natural carbonation of a municipal solid waste incineration (MSWI) fly ash mixture: Basic strategies for higher carbon dioxide sequestration and reliable mass quantification. Environmental Research, 2023, 217, 114805.	3.7	9
287	Separator Design for High-Performance Supercapacitors: Requirements, Challenges, Strategies, and Prospects. ACS Energy Letters, 2023, 8, 56-78.	8.8	16
288	Selective formation of isoprene via dehydration of 3-methyl-1,3-butanediol over Y2Zr2O7 catalyst. Molecular Catalysis, 2023, 535, 112854.	1.0	2
289	Mixed oxides as multi-functional reaction media for chemical looping catalysis. Chemical Communications, 2022, 59, 10-28.	2.2	9
290	Enhanced decomposition of biomass tar using low concentration copper doped hematite in direct chemical looping process. Fuel Processing Technology, 2023, 241, 107601.	3.7	2

#	Article	IF	Citations
291	High purity hydrogen production via coupling CO2 reforming of biomass-derived gas and chemical looping water splitting. Applied Energy, 2023, 331, 120447.	5.1	5
292	Sustainable ammonia recovery from anaerobic digestion effluent through pretreating the feed by biomass ash. Separation and Purification Technology, 2023, 307, 122655.	3.9	1
293	Composite based on furan aminoplastics and filler obtained from renewable raw materials. Plasticheskie Massy: Sintez Svojstva Pererabotka Primenenie, 2022, , 40-41.	0.1	0
294	Performance Evaluation of Torrefaction Coupled with a Chemical Looping Gasification Process under Autothermal Conditions: Flexible Syngas Production from Biomass. Energy & Fuels, 2023, 37, 424-438.	2.5	3
295	Pressurised Chemical Looping Combustion (PCLC): Air Reactor design. Journal of Physics: Conference Series, 2022, 2385, 012127.	0.3	1
296	Chemical looping gasification of biomass char for hydrogen-rich syngas production via Mn-doped Fe2O3 oxygen carrier. International Journal of Hydrogen Energy, 2023, 48, 12636-12645.	3.8	6
297	Kinetic and thermodynamic studies of HMF-ester synthesis using BrÃ¸nstedâ€“Lewis acidic ionic liquid catalyst. , 2023, 1, 282-293.		1
298	Enhancement mechanisms of spherical UFA on CO2 capture of waste slag. Energy, 2023, 269, 126720.	4.5	5
299	Interaction behavior of sand-diluted and mixed Fe-based oxygen carriers with potassium salts. Fuel, 2023, 339, 127372.	3.4	5
300	Advances in the application of active metal-based sorbents and oxygen carriers in chemical looping biomass steam gasification for H2 production. International Journal of Hydrogen Energy, 2023, 48, 10394-10422.	3.8	3
301	HYDROGENATION OF ABIES WOOD ETHANOL-LIGNIN WITH HYDROGEN IN ETHANOL MEDIUM IN THE PRESENCE OF NiCuMo/SiO2 CATALYST. Khimiya Rastitel'nogo Syr'ya, 2022, , 89-98.	0.0	0
302	Thermal and oxidation processes for tar removal from syngas. , 2023, , 419-448.		0
303	Performance of plasma-assisted chemical looping hydrogen generation at moderate temperature. Sustainable Energy and Fuels, 0, , .	2.5	1
304	Green hydrogen production from decarbonized biomass gasification: An integrated techno-economic and environmental analysis. Energy, 2023, 270, 126926.	4.5	29
305	Surfactants/citric acid catalyzed hydrothermal carbonization of pomelo peel for solid fuels: Conversion mechanism and combustion performance. Fuel, 2023, 342, 127762.	3.4	8
306	Thermodynamic study on the effects of operating parameters on CaO-based sorption enhanced steam gasification of biomass. Energy, 2023, 273, 127208.	4.5	3
307	Assessment of bioenergy and syngas generation in India based on estimation of agricultural residues. Energy Reports, 2023, 9, 3771-3786.	2.5	3
308	Assessment of the chemical looping gasification of wheat straw pellets at the 20 kWth scale. Fuel, 2023, 344, 128059.	3.4	8

#	Article	IF	Citations
309	Enhancement of sustainable bioenergy production by valorising tomato residues: A GIS-based model. Science of the Total Environment, 2023, 869, 161766.	3.9	8
310	Reductive Catalytic Fractionation of Abies Wood into Bioliquids and Cellulose with Hydrogen in an Ethanol Medium over NiCuMo/SiO2 Catalyst. Catalysts, 2023, 13, 413.	1.6	2
311	Biomass energy perspective in Pakistan based on chemical looping gasification for hydrogen production and power generation. International Journal of Hydrogen Energy, 2023, 48, 18211-18232.	3.8	17
312	Dimensioning Air Reactor and Fuel Reactor of a Pressurized Chemical Looping Combustor to Be Coupled to a Gas Turbine: Part 1, the Air Reactor. Energies, 2023, 16, 2102.	1.6	1
313	Materials, fuels, upgrading, economy, and life cycle assessment of the pyrolysis of algal and lignocellulosic biomass: a review. Environmental Chemistry Letters, 2023, 21, 1419-1476.	8.3	34
314	Carbon-neutral conversion of methane supported by Ni-(Rh, Co) bimetallic catalysts for low-temperature proton-conducting ceramic fuel cells. Chemical Engineering Journal, 2023, 462, 142334.	6.6	2
315	OCAC for Fuel Conversion Without CO2 Capture. , 2023, , 19-63.		0
316	Thermochemical co-conversion of biomass-plastic waste to biochar: a review. Green Chemical Engineering, 2024, 5, 31-49.	3.3	18
317	Techno-economic analysis and life cycle assessment of hydrogenation upgrading and supercritical ethanol upgrading processes based on fast pyrolysis of cornstalk for biofuel. Biomass Conversion and Biorefinery, 0, , .	2.9	1
318	Insight into the biomass pyrolysis volatiles reaction with an iron-based oxygen carrier in a two-stage fixed-bed reactor. Chemical Engineering Journal, 2023, 465, 142860.	6.6	1
319	Evaluation of redox activity of brownmillerite-structured Ca2Fe2O5 oxygen carrier for chemical looping applications. International Journal of Hydrogen Energy, 2023, 48, 27112-27126.	3.8	2
329	Energy harvesting from tropical biomasses in Wallacea region: scenarios, technologies, and perspectives. Biomass Conversion and Biorefinery, 0, , .	2.9	2
331	Life cycle assessment of revalorization of lignocellulose for the development of biorefineries. Environment, Development and Sustainability, 0, , .	2.7	4
340	Electroreforming injects a new life into solid waste. , 2023, 1, 892-920.		7
358	Syntheses and applications of iron-based functional materials for bioenergy production: a review. Biomass Conversion and Biorefinery, 0, , .	2.9	1
370	Chemical Looping: At the Forefront of Green Transformation. , 2024, , .		0
381	Carbon Capture With Chemical Looping. , 2024, , .		0