

Chemical-looping combustion (CLC) for inherent CO_2 separations – a review

Chemical Engineering Science

63, 4433-4451

DOI: 10.1016/j.ces.2008.05.028

Citation Report

#	ARTICLE	IF	CITATIONS
1	The reaction path of CO and FeO in a chemical-looping combustion system. , 2009, , .		0
2	Progress and New Developments in Carbon Capture and Storage. Critical Reviews in Plant Sciences, 2009, 28, 123-138.	5.7	97
3	Experimental research on gas-solid flow in a dual fluidized bed. , 2009, , .		1
4	The optimized geometric structure of the (0001) surface of Fe_2O_3 . , 2009, , .		0
5	Advancements in Development of Chemical-Looping Combustion: A Review. International Journal of Chemical Engineering, 2009, 2009, 1-16.	2.4	106
6	A novel dual circulating fluidized bed system for chemical looping processes. AIChE Journal, 2009, 55, 3255-3266.	3.6	160
7	Syngas combustion in a chemical-looping combustion system using an impregnated Ni-based oxygen carrier. Fuel, 2009, 88, 2357-2364.	6.4	96
8	Solid fuels in chemical-looping combustion using oxide scale and unprocessed iron ore as oxygen carriers. Fuel, 2009, 88, 1945-1954.	6.4	150
9	Nickel on lanthanum-modified $\gamma\text{-Al}_2\text{O}_3$ oxygen carrier for CLC: Reactivity and stability. Catalysis Today, 2009, 143, 179-186.	4.4	58
10	Solid fuels in chemical-looping combustion using a NiO-based oxygen carrier. Chemical Engineering Research and Design, 2009, 87, 1543-1550.	5.6	69
11	Modeling of the chemical-looping combustion of methane using a Cu-based oxygen carrier. Energy Procedia, 2009, 1, 391-398.	1.8	10
12	Using chemical-looping with oxygen uncoupling (CLOU) for combustion of six different solid fuels. Energy Procedia, 2009, 1, 447-453.	1.8	128
13	Carbonation and Hydration Characteristics of Dry Potassium-Based Sorbents for CO_2 Capture. Energy & Fuels, 2009, 23, 1766-1769.	5.1	89
14	Synthesis Gas Generation by Chemical-Looping Reforming Using Ce-Based Oxygen Carriers Modified with Fe, Cu, and Mn Oxides. Energy & Fuels, 2009, 23, 2095-2102.	5.1	124
15	Effect of crystal structure on CO_2 capture characteristics of dry potassium-based sorbents. Chemosphere, 2009, 75, 1401-1404.	8.2	53
16	CO_2 Absorption Using Dry Potassium-Based Sorbents with Different Supports. Energy & Fuels, 2009, 23, 4683-4687.	5.1	113
17	Effect of fuel particle size on reaction rate in chemical looping combustion. Chemical Engineering Science, 2010, 65, 5841-5851.	3.8	13
18	On the evaluation of synthetic and natural ilmenite using syngas as fuel in chemical-looping combustion (CLC). Chemical Engineering Research and Design, 2010, 88, 1505-1514.	5.6	95

#	ARTICLE	IF	CITATIONS
19	Particuology and climate change. Particuology, 2010, 8, 507-513.	3.6	3
20	Off-design performance of a chemical looping combustion (CLC) combined cycle: effects of ambient temperature. Journal of Thermal Science, 2010, 19, 87-96.	1.9	9
22	Syngas and a separate nitrogen/argon stream via chemical looping reforming – A 140kW pilot plant study. Fuel, 2010, 89, 1249-1256.	6.4	130
23	Reactivity of a NiO/Al ₂ O ₃ oxygen carrier prepared by impregnation for chemical-looping combustion. Fuel, 2010, 89, 3399-3409.	6.4	88
24	Investigation of NiO/NiAl ₂ O ₄ oxygen carriers for chemical-looping combustion produced by spray-drying. International Journal of Greenhouse Gas Control, 2010, 4, 23-35.	4.6	61
25	Study on CO ₂ capture using dry potassium-based sorbents through orthogonal test method. International Journal of Greenhouse Gas Control, 2010, 4, 655-658.	4.6	43
26	Reduction of CaSO ₄ oxygen carrier with coal in chemical-looping combustion: Effects of temperature and gasification intermediate. International Journal of Greenhouse Gas Control, 2010, 4, 716-728.	4.6	51
27	Oxy-fuel combustion of solid fuels. Progress in Energy and Combustion Science, 2010, 36, 581-625.	31.2	940
28	Multiscale process intensification for catalytic partial oxidation of methane: From nanostructured catalysts to integrated reactor concepts. Catalysis Today, 2010, 157, 24-32.	4.4	20
29	Reduction and oxidation kinetics of Co–Ni/Al ₂ O ₃ oxygen carrier involved in a chemical-looping combustion cycles. Chemical Engineering Science, 2010, 65, 98-106.	3.8	102
30	Development and testing of an interconnected multiphase CFD-model for chemical looping combustion. Chemical Engineering Science, 2010, 65, 4732-4745.	3.8	74
31	Modeling of the chemical-looping combustion of methane using a Cu-based oxygen-carrier. Combustion and Flame, 2010, 157, 602-615.	5.2	118
32	Pressurized chemical-looping combustion of coal with an iron ore-based oxygen carrier. Combustion and Flame, 2010, 157, 1140-1153.	5.2	141
35	Negative Net CO ₂ Emissions from Oxy-Decarbonization of Biogas to H ₂ . International Journal of Chemical Reactor Engineering, 2010, 8, .	1.1	19
36	Chemical-looping combustion systems and technology for carbon dioxide (CO ₂) capture in power plants. , 2010, , 358-379.		0
37	Research on the Reactivity of Oxygen Carrier Fe ₂ O ₃ for Chemical Looping Combustion –CLC–, 2010, , .		1
38	Synthesis and characterization of sintering-resistant silica-encapsulated Fe ₃ O ₄ magnetic nanoparticles active for oxidation and chemical looping combustion. Nanotechnology, 2010, 21, 225708.	2.6	51
39	Hydrogen Production via Chemical Looping Steam Reforming in a Periodically Operated Fixed-Bed Reactor. Industrial & Engineering Chemistry Research, 2010, 49, 11037-11044.	3.7	81

#	ARTICLE	IF	CITATIONS
40	New CO ₂ Capture Process for Hydrogen Production Combining Ca and Cu Chemical Loops. Environmental Science & Technology, 2010, 44, 6901-6904.	10.0	148
41	Development of Iron Oxide Carriers for Chemical Looping Combustion Using Sol-Gel. Industrial & Engineering Chemistry Research, 2010, 49, 5383-5391.	3.7	82
42	Ilmenite Activation during Consecutive Redox Cycles in Chemical-Looping Combustion. Energy & Fuels, 2010, 24, 1402-1413.	5.1	277
44	Experimental Investigation of a CuO/Al ₂ O ₃ Oxygen Carrier for Chemical-Looping Combustion. Industrial & Engineering Chemistry Research, 2010, 49, 9720-9728.	3.7	44
45	Reduction Kinetics of La Modified NiO/La- γ -Al ₂ O ₃ Oxygen Carrier for Chemical-Looping Combustion. Industrial & Engineering Chemistry Research, 2010, 49, 11009-11017.	3.7	29
46	Pressurized Chemical-Looping Combustion of Chinese Bituminous Coal: Cyclic Performance and Characterization of Iron Ore-Based Oxygen Carrier. Energy & Fuels, 2010, 24, 1449-1463.	5.1	73
47	CO ₂ Carrying Behavior of Calcium Aluminate Pellets under High-Temperature/High-CO ₂ Concentration Calcination Conditions. Industrial & Engineering Chemistry Research, 2010, 49, 6916-6922.	3.7	78
48	Operando Raman Spectroscopy for Determining the Active Phase in One-Dimensional Mn _{1-x} Ce _x O ₂ Nanorod Catalysts during Methane Combustion. Journal of Physical Chemistry Letters, 2010, 1, 1648-1654.	4.6	56
49	The Design and Tests in a Three Interconnected Fluidized Bed. , 2010, , .		0
50	Thermodynamic Analysis of Alternative Approaches to Chemical Looping Combustion. Energy & Fuels, 2011, 25, 656-669.	5.1	14
51	Prospects of Al ₂ O ₃ and MgAl ₂ O ₄ -Supported CuO Oxygen Carriers in Chemical-Looping Combustion (CLC) and Chemical-Looping with Oxygen Uncoupling (CLOU). Energy & Fuels, 2011, 25, 5493-5502.	5.1	133
52	Influence of Limestone Addition in a 10 kW _{th} Chemical-Looping Combustion Unit Operated with Petcoke. Energy & Fuels, 2011, 25, 4818-4828.	5.1	59
53	Effect of Water Vapor on the Redox Reactions of Iron-Based Oxygen Carriers for Chemical Looping Combustion. Energy & Fuels, 2011, 25, 4271-4279.	5.1	12
54	CaO-Based Pellets with Oxygen Carriers and Catalysts. Energy & Fuels, 2011, 25, 4846-4853.	5.1	44
55	Process configuration options for handling incomplete fuel conversion in CO ₂ capture: Case study on natural gas-fired CLC. International Journal of Greenhouse Gas Control, 2011, 5, 805-815.	4.6	2
56	Novel oxygen carriers for chemical looping combustion: La _{1-x} Ce _x BO ₃ (B = Co, Mn) perovskites synthesized by reactive grinding and nanocasting. Energy and Environmental Science, 2011, 4, 4258.	30.8	103
57	Core-in-Shell CaO/CuO-Based Composite for CO ₂ Capture. Industrial & Engineering Chemistry Research, 2011, 50, 12384-12391.	3.7	65
58	Mesoporous Alumina-Supported Amines as Potential Steam-Stable Adsorbents for Capturing CO ₂ from Simulated Flue Gas and Ambient Air. Energy & Fuels, 2011, 25, 5528-5537.	5.1	252

#	ARTICLE	IF	CITATIONS
59	CO ₂ Capture from Dilute Gases as a Component of Modern Global Carbon Management. Annual Review of Chemical and Biomolecular Engineering, 2011, 2, 31-52.	6.8	227
60	Oxygen Carriers for Chemical Looping Combustion - 4 000 h of Operational Experience. Oil and Gas Science and Technology, 2011, 66, 161-172.	1.4	181
61	Chemical Looping Combustion of Solid Fuels in a Laboratory Fluidized-bed Reactor. Oil and Gas Science and Technology, 2011, 66, 201-208.	1.4	17
62	Experimental Investigations on a Novel Chemical Looping Combustion Configuration. Oil and Gas Science and Technology, 2011, 66, 265-275.	1.4	11
63	Effect of Ash on Oxygen Carriers for the Application of Chemical Looping Combustion to a High Carbon Char. Oil and Gas Science and Technology, 2011, 66, 291-300.	1.4	33
64	A Study on the Role of Reaction Modeling in Multi-phase CFD-based Simulations of Chemical Looping Combustion. Oil and Gas Science and Technology, 2011, 66, 313-331.	1.4	22
65	Characterization and kinetics of reduction of CaSO ₄ with carbon monoxide for chemical-looping combustion. Combustion and Flame, 2011, 158, 2524-2539.	5.2	55
66	Reactivity of a spray-dried NiO/NiAl ₂ O ₄ oxygen carrier for chemical-looping combustion. Chemical Engineering Science, 2011, 66, 4636-4644.	3.8	46
67	A comparative study of reaction models applied for chemical looping combustion. Chemical Engineering Research and Design, 2011, 89, 2714-2727.	5.6	32
68	Perspectives on CO ₂ capture and storage. , 2011, 1, 119-133.		35
69	Experimental investigation of chemical-looping hydrogen generation using Al ₂ O ₃ or TiO ₂ -supported iron oxides in a batch fluidized bed. International Journal of Hydrogen Energy, 2011, 36, 8915-8926.	7.1	101
70	Exergoeconomic and exergoenvironmental evaluation of power plants including CO ₂ capture. Chemical Engineering Research and Design, 2011, 89, 1461-1469.	5.6	54
71	Hydrodynamic simulation of fuel-reactor in chemical looping combustion process. Chemical Engineering Research and Design, 2011, 89, 1501-1510.	5.6	36
72	Gasification inhibition in chemical-looping combustion with solid fuels. Combustion and Flame, 2011, 158, 393-400.	5.2	83
73	Investigation into compound CaSO ₄ oxygen carrier for chemical-looping combustion. Journal of Fuel Chemistry and Technology, 2011, 39, 161-168.	2.0	17
74	Heat and Mass Flow Control in an Interconnected Multiphase CFD Model for Chemical Looping Combustion. Chemical Engineering and Technology, 2011, 34, 1259-1270.	1.5	3
75	Poly(L-lysine) Brushed Mesoporous Silica Hybrid Material as a Biomolecule-Based Adsorbent for CO ₂ Capture from Simulated Flue Gas and Air. Chemistry - A European Journal, 2011, 17, 10556-10561.	3.3	89
76	Kinetics of redox reactions of ilmenite for chemical-looping combustion. Chemical Engineering Science, 2011, 66, 689-702.	3.8	274

#	ARTICLE	IF	CITATIONS
77	Carbon capture and utilization via chemical looping dry reforming. Chemical Engineering Research and Design, 2011, 89, 1533-1543.	5.6	131
78	NiO reduction with hydrogen and light hydrocarbons: Contrast between SiO ₂ -supported and unsupported NiO nanoparticles. Applied Catalysis A: General, 2011, 398, 187-194.	4.3	23
79	Spinel mixed oxides as oxygen carriers for chemical looping combustion. Energy Procedia, 2011, 4, 318-323.	1.8	27
80	Combined manganese/iron oxides as oxygen carrier for chemical looping combustion with oxygen uncoupling (CLOU) in a circulating fluidized bed reactor system. Energy Procedia, 2011, 4, 341-348.	1.8	105
81	Ilmenite as oxygen carrier in a chemical looping combustion system with coal. Energy Procedia, 2011, 4, 362-369.	1.8	38
82	Integrating desulfurization with CO ₂ -capture in chemical-looping combustion. Fuel, 2011, 90, 608-617.	6.4	45
83	Fluid dynamic simulation in a chemical looping combustion with two interconnected fluidized beds. Fuel Processing Technology, 2011, 92, 385-393.	7.2	47
84	Exergoeconomic and exergoenvironmental analyses of a combined cycle power plant with chemical looping technology. International Journal of Greenhouse Gas Control, 2011, 5, 475-482.	4.6	141
85	CaMn _{0.875} Ti _{0.125} O ₃ as oxygen carrier for chemical-looping combustion with oxygen uncoupling (CLOU)â€”Experiments in a continuously operating fluidized-bed reactor system. International Journal of Greenhouse Gas Control, 2011, 5, 356-366.	4.6	132
86	La _{1-x} Sr _x MyFe _{1-y} O _{3-Î´} perovskites as oxygen-carrier materials for chemical-looping reforming. International Journal of Hydrogen Energy, 2011, 36, 6657-6670.	7.1	140
87	Chemical kinetics of copper oxide reduction with carbon monoxide. Proceedings of the Combustion Institute, 2011, 33, 2803-2810.	3.9	66
88	Experimental investigation of chemical looping hydrogen generation using iron oxides in a batch fluidized bed. Proceedings of the Combustion Institute, 2011, 33, 2691-2699.	3.9	39
89	Redox energetics of perovskite-related La(B _{1-x} B _{2x})O _{3-Î´} oxides where B ²⁺ is FeCo, MnCo, MnNi and CoCu. Solid State Ionics, 2011, 182, 19-23.	2.7	8
90	Mitigating NH ₃ Vaporization from an Aqueous Ammonia Process for CO ₂ Capture. International Journal of Chemical Reactor Engineering, 2011, 9, .	1.1	23
91	Interaction of CO with Pd-Doped $\text{Fe}_{2}\text{O}_{3}$ (001) in the CLC System: A Density Functional Analysis. Advanced Materials Research, 2011, 403-408, 2285-2288.	0.3	1
92	A Thermodynamic Analysis of Chemical Looping Combustion. , 2011, , .		1
93	Interaction of CO with CuO and CuO/graphene: Reactions Mechanism and the Formation of CO ₂ . Advanced Materials Research, 0, 354-355, 279-285.	0.3	0
94	The Performance Research on Reaction of $\text{Fe}_{2}\text{O}_{3}/\text{Al}_{2}\text{O}_{3}$ Oxygen Carrier and CO in Chemical-Looping Combustion Process. Advanced Materials Research, 2012, 550-553, 974-978.	0.3	0

#	ARTICLE	IF	CITATIONS
95	RECENT ADVANCES IN CaSO_4 OXYGEN CARRIER FOR CHEMICAL-LOOPING COMBUSTION (CLC) PROCESS. Chemical Engineering Communications, 2012, 199, 1463-1491.	2.6	26
96	An Experimental Research on Reactivity of Fe-Based Oxygen Carrier Using Coal Ash as Support. Applied Mechanics and Materials, 0, 174-177, 534-538.	0.2	1
97	Materials challenges in carbon-mitigation technologies. MRS Bulletin, 2012, 37, 431-438.	3.5	15
98	Transport phenomena in packed bed reactor technology for chemical looping combustion. Chemical Engineering Research and Design, 2012, 90, 1625-1631.	5.6	3
99	Fabrication and Characterization of Perovskite-Type Oxide $\text{LaFe}_{0.9}\text{Co}_{0.1}\text{O}_3$ Nanoparticles and Its Performance in Aerobic Oxidation of Thiols to Disulfide. Chinese Journal of Catalysis, 2012, 33, 1791-1796.	14.0	16
100	Some remarks on direct solid fuel combustion using chemical looping processes. Current Opinion in Chemical Engineering, 2012, 1, 290-295.	7.8	26
101	Redox Characteristics of Fe-Ni/SiO_2 Bimetallic Oxygen Carriers in CO under Conditions Pertinent to Chemical Looping Combustion. Energy & Fuels, 2012, 26, 75-84.	5.1	31
102	Catalytic Activity of Ni-Based Oxygen-Carriers for Steam Methane Reforming in Chemical-Looping Processes. Energy & Fuels, 2012, 26, 791-800.	5.1	89
103	Effect of Carbon Deposition on the Oxidation Rate of Copper/Bentonite in the Chemical Looping Process. Energy & Fuels, 2012, 26, 6576-6583.	5.1	13
104	DFT-study of the energetics of perovskite-type oxides LaMO_3 ($\text{M} = \text{Sc-Cu}$). RSC Advances, 2012, 2, 10667.	3.6	10
105	Design strategy for a Chemical Looping Combustion system using process simulation and Computational Fluid Dynamics. Progress in Computational Fluid Dynamics, 2012, 12, 80.	0.2	3
106	Evaluation of Novel Ceria-Supported Metal Oxides As Oxygen Carriers for Chemical-Looping Combustion. Industrial & Engineering Chemistry Research, 2012, 51, 12796-12806.	3.7	51
107	Reduction Rate Enhancements for Coal Direct Chemical Looping Combustion with an Iron Oxide Oxygen Carrier. Energy & Fuels, 2012, 26, 2505-2511.	5.1	50
108	Synthesis of Cu-Rich, Al_2O_3 -Stabilized Oxygen Carriers Using a Coprecipitation Technique: Redox and Carbon Formation Characteristics. Environmental Science & Technology, 2012, 46, 3561-3566.	10.0	45
109	Analysis of Reactivity of a CuO -Based Oxygen Carrier for Chemical Looping Combustion of Coal. Energy & Fuels, 2012, 26, 3275-3283.	5.1	20
110	Evaluation of CuAl_2O_4 as an Oxygen Carrier in Chemical-Looping Combustion. Industrial & Engineering Chemistry Research, 2012, 51, 13924-13934.	3.7	73
111	Oxygen Release and Oxidation Rates of MgAl_2O_4 -Supported CuO Oxygen Carrier for Chemical-Looping Combustion with Oxygen Uncoupling (CLOU). Energy & Fuels, 2012, 26, 6528-6539.	5.1	75
112	High-Temperature Pressure Swing Adsorption Process for CO_2 Separation. Energy & Fuels, 2012, 26, 169-175.	5.1	40

#	ARTICLE	IF	CITATIONS
113	Carbonation Behavior and the Reaction Kinetic of a New Dry Potassium-Based Sorbent for CO ₂ Capture. Industrial & Engineering Chemistry Research, 2012, 51, 14361-14366.	3.7	30
114	Development of Sinter-Resistant Core-Shell LaMn _{0.8} Fe _{0.2} O ₃ @mSiO ₂ Oxygen Carriers for Chemical Looping Combustion. Energy & Fuels, 2012, 26, 3091-3102.	5.1	47
115	Kinetics of the Reduction of CuO/Bentonite by Methane (CH ₄) during Chemical Looping Combustion. Energy & Fuels, 2012, 26, 2779-2785.	5.1	37
116	Deep reduction behavior of iron oxide and its effect on direct CO oxidation. Applied Surface Science, 2012, 258, 2562-2569.	6.1	34
117	Synergetic effect of ZrO ₂ on the oxidation-reduction reaction of Fe ₂ O ₃ during chemical looping combustion. Applied Surface Science, 2012, 258, 10022-10027.	6.1	35
118	An integrated system combining chemical looping hydrogen generation process and solid oxide fuel cell/gas turbine cycle for power production with CO ₂ capture. Journal of Power Sources, 2012, 215, 89-98.	7.8	42
119	Experimental investigation of CLC coal combustion with nickel based particles in a fluidized bed. Fuel, 2012, 101, 205-214.	6.4	15
120	Effects of particle cloud extinction on synthesis gas reduction of metal oxides in chemical looping reactors. Fuel, 2012, 99, 262-270.	6.4	3
121	Conceptual design of a hydrogen production process from natural gas with CO ₂ capture using a Ca-Cu chemical loop. International Journal of Greenhouse Gas Control, 2012, 6, 126-141.	4.6	114
122	Use of manganese ore in chemical-looping combustion (CLC)-Effect on steam gasification. International Journal of Greenhouse Gas Control, 2012, 8, 56-60.	4.6	54
123	Chemical-looping combustion and chemical-looping reforming of kerosene in a circulating fluidized-bed 300W laboratory reactor. International Journal of Greenhouse Gas Control, 2012, 9, 1-9.	4.6	62
124	Effect of H ₂ S on the behaviour of an impregnated NiO-based oxygen-carrier for chemical-looping combustion (CLC). Applied Catalysis B: Environmental, 2012, 126, 186-199.	20.2	50
125	Progress and trends in CO ₂ capture/separation technologies: A review. Energy, 2012, 46, 431-441.	8.8	735
126	Chemical-looping combustion of solid fuels - Operation in a 10kW unit with two fuels, above-bed and in-bed fuel feed and two oxygen carriers, manganese ore and ilmenite. Fuel, 2012, 102, 808-822.	6.4	166
127	Simulation of flow behavior of particles by cluster structure-dependent drag coefficient model for chemical looping combustion process: Air reactor modeling. Fuel Processing Technology, 2012, 104, 219-233.	7.2	15
128	Chemical Looping Combustion. , 2012, , 1623-1654.		1
129	Interaction of Iron Oxide with Alumina in a Composite Oxygen Carrier during the Production of Hydrogen by Chemical Looping. Energy & Fuels, 2012, 26, 603-617.	5.1	96
130	Influence of Porosity on Performance of Freeze-granulated Fe ₂ O ₃ /Al ₂ O ₃ Oxygen Carriers Used for Chemical Looping Combustion. Energy and Environment Research, 2012, 2, .	0.2	4

#	ARTICLE	IF	CITATIONS
131	Review of the Recent Chemical Looping Process Developments for Novel Energy and Fuel Applications. Energy & Fuels, 2012, 26, 15-40.	5.1	214
132	Carbon Stripping – A Critical Process Step in Chemical Looping Combustion of Solid Fuels. Chemical Engineering and Technology, 2012, 35, 497-507.	1.5	48
133	Solids Holdup of High Flux Circulating Fluidized Bed at Elevated Pressure. Chemical Engineering and Technology, 2012, 35, 904-910.	1.5	15
134	Chemical Looping Dry Reforming as Novel, Intensified Process for CO ₂ Activation. Chemical Engineering and Technology, 2012, 35, 1281-1290.	1.5	94
135	Coprecipitated, Copper-Based, Alumina-Stabilized Materials for Carbon Dioxide Capture by Chemical Looping Combustion. ChemSusChem, 2012, 5, 1610-1618.	6.8	25
136	Reduction and oxidation kinetics of nickel-based oxygen-carriers for chemical-looping combustion and chemical-looping reforming. Chemical Engineering Journal, 2012, 188, 142-154.	12.7	163
137	Testing of minerals and industrial by-products as oxygen carriers for chemical-looping combustion in a circulating fluidized-bed 300W laboratory reactor. Fuel, 2012, 93, 351-363.	6.4	59
138	Fate and abatement of mercury and other trace elements in a coal fluidised bed oxy combustion pilot plant. Fuel, 2012, 95, 272-281.	6.4	80
139	Behavior of ilmenite as oxygen carrier in chemical-looping combustion. Fuel Processing Technology, 2012, 94, 101-112.	7.2	210
140	Continuous hydrogen production via the steam-iron reaction by chemical looping in a circulating fluidized-bed reactor. International Journal of Hydrogen Energy, 2012, 37, 4843-4854.	7.1	119
141	Reactivity study on oxygen carriers for solar-hybrid chemical-looping combustion of di-methyl ether. Combustion and Flame, 2012, 159, 1806-1813.	5.2	9
142	Hydrogen and electricity co-production plant integrating steam-iron process and chemical looping combustion. International Journal of Hydrogen Energy, 2012, 37, 8204-8216.	7.1	23
143	Progress in Chemical-Looping Combustion and Reforming technologies. Progress in Energy and Combustion Science, 2012, 38, 215-282.	31.2	1,865
144	Oxy-fuel combustion of pulverized coal: Characterization, fundamentals, stabilization and CFD modeling. Progress in Energy and Combustion Science, 2012, 38, 156-214.	31.2	810
145	An assessment of the ability of computational fluid dynamic models to predict reactive gas-solid flows in a fluidized bed. Powder Technology, 2012, 215-216, 15-25.	4.2	27
146	(Mn _z Fe _{1-z}) _y O _x combined oxides as oxygen carrier for chemical-looping with oxygen uncoupling. AIChE Journal, 2013, 59, 582-588.	3.6	73
147	Cu-based mixed metal oxide catalysts for WGS: Reduction kinetics and catalytic activity. Canadian Journal of Chemical Engineering, 2013, 91, 1450-1458.	1.7	19
148	Effects of CO ₂ Atmosphere and K ₂ CO ₃ Addition on the Reduction Reactivity, Oxygen Transport Capacity, and Sintering of CuO and Fe ₂ O ₃ Oxygen Carriers in Coal Direct Chemical Looping Combustion. Energy & Fuels, 2013, 27, 2703-2711.	5.1	20

#	ARTICLE	IF	CITATIONS
149	Mixing and segregation of binary oxygen carrier mixtures in a cold flow model of a chemical looping combustor. <i>Chemical Engineering Journal</i> , 2013, 223, 772-784.	12.7	23
150	Enhancement of Hydrogen Production and Carbon Dioxide Capturing in a Novel Methane Steam Reformer Coupled with Chemical Looping Combustion and Assisted by Hydrogen Perm-Selective Membranes. <i>Energy & Fuels</i> , 2013, 27, 5359-5372.	5.1	34
151	Integrated CO ₂ capture, wastewater treatment and biofuel production by microalgae culturing – A review. <i>Renewable and Sustainable Energy Reviews</i> , 2013, 27, 622-653.	16.4	483
152	Carbon capture from stationary power generation sources: A review of the current status of the technologies. <i>Korean Journal of Chemical Engineering</i> , 2013, 30, 1497-1526.	2.7	128
153	ZrO ₂ -Supported CuO Oxygen Carriers for Chemical-Looping with Oxygen Uncoupling (CLOU). <i>Energy Procedia</i> , 2013, 37, 550-559.	1.8	14
154	Nickel catalyst auto-reduction during steam reforming of bio-oil model compound acetic acid. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 15160-15172.	7.1	62
155	Nanostructured MnO ₂ synthesized via methane gas reduction of manganese ore and hydrothermal precipitation methods. <i>Transactions of Nonferrous Metals Society of China</i> , 2013, 23, 134-139.	4.2	15
156	Opportunities and challenges in carbon dioxide capture. <i>Journal of CO₂ Utilization</i> , 2013, 1, 69-87.	6.8	379
157	Investigation of combined catalyst and oxygen carrier systems for the partial oxidation of naphthalene as model tar from biomass gasification. <i>Biomass and Bioenergy</i> , 2013, 53, 65-71.	5.7	10
158	Model-based evaluation of a chemical looping combustion plant for energy generation at a pre-commercial scale of 100MWth. <i>Energy Conversion and Management</i> , 2013, 76, 323-331.	9.2	29
159	Experimental Demonstration of a Novel Gas Switching Combustion Reactor for Power Production with Integrated CO ₂ Capture. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 14241-14250.	3.7	44
160	Oxygen non-stoichiometry and redox thermodynamics of LaMn _{1-x} CoxO ₃ . <i>Solid State Ionics</i> , 2013, 231, 49-57.	2.7	20
161	Process simulations of NH ₃ abatement system for large-scale CO ₂ capture using aqueous ammonia solution. <i>International Journal of Greenhouse Gas Control</i> , 2013, 18, 114-127.	4.6	38
162	Syngas chemical looping process: Dynamic modeling of a moving bed reducer. <i>AIChE Journal</i> , 2013, 59, 3432-3443.	3.6	14
163	Kinetics of the reduction of hematite (Fe ₂ O ₃) by methane (CH ₄) during chemical looping combustion: A global mechanism. <i>Chemical Engineering Journal</i> , 2013, 232, 478-487.	12.7	115
164	Chemical looping combustion of biomass-derived syngas using ceria-supported oxygen carriers. <i>Bioresource Technology</i> , 2013, 140, 385-391.	9.6	22
165	A novel reactor configuration for packed bed chemical-looping combustion of syngas. <i>International Journal of Greenhouse Gas Control</i> , 2013, 16, 1-12.	4.6	76
166	Heterogeneous modeling of chemical-looping combustion. Part 1: Reactor model. <i>Chemical Engineering Science</i> , 2013, 104, 233-249.	3.8	62

#	ARTICLE	IF	CITATIONS
167	Density functional theory study on the mechanism of calcium sulfate reductive decomposition by methane. <i>Fuel</i> , 2013, 110, 204-211.	6.4	27
168	Review of recent advances in carbon dioxide separation and capture. <i>RSC Advances</i> , 2013, 3, 22739.	3.6	632
169	Chemical looping combustion (CLC). , 2013, , 895-930.		17
170	Rotary Bed Reactor for Chemical-Looping Combustion with Carbon Capture. Part 1: Reactor Design and Model Development. <i>Energy & Fuels</i> , 2013, 27, 327-343.	5.1	40
171	A hybrid solar and chemical looping combustion system for solar thermal energy storage. <i>Applied Energy</i> , 2013, 103, 671-678.	10.1	63
172	Solâ€“Gelâ€“Derived, Calciumâ€“Based, Copperâ€“Functionalised CO ₂ Sorbents for an Integrated Chemical Looping Combustionâ€“Calcium Looping CO ₂ Capture Process. <i>ChemPlusChem</i> , 2013, 78, 92-100.	2.8	33
173	Examining the Cu-Mn-O Spinel System as an Oxygen Carrier in Chemical Looping Combustion. <i>Energy Technology</i> , 2013, 1, 59-69.	3.8	2
174	New fabrication of mixed oxygen carrier for CLC: Sludge and scale from a power plant. <i>Fuel</i> , 2013, 111, 496-504.	6.4	7
175	Next Scale Chemical Looping Combustion: process Integration and Part Load Investigations for a 10MW Demonstration Unit. <i>Energy Procedia</i> , 2013, 37, 635-644.	1.8	20
176	Performance of coal fly-ash based oxygen carrier for the chemical looping combustion of synthesis gas. <i>Applied Energy</i> , 2013, 109, 44-50.	10.1	24
177	Synergetic effects of mixed copperâ€“iron oxides oxygen carriers in chemical looping combustion. <i>Fuel</i> , 2013, 108, 319-333.	6.4	110
178	Model-based analysis of bench-scale fixed-bed units for chemical-looping combustion. <i>Chemical Engineering Journal</i> , 2013, 233, 331-348.	12.7	44
179	The influence of high intensity solar radiation on the temperature and reduction of an oxygen carrier particle in hybrid chemical looping combustion. <i>Chemical Engineering Science</i> , 2013, 95, 331-342.	3.8	18
180	Experimental investigation of co-combustion of coal and biomass using chemical looping technology. <i>Fuel Processing Technology</i> , 2013, 110, 258-267.	7.2	27
181	Experiment and rate equation modeling of Fe oxidation kinetics in chemical looping combustion. <i>Combustion and Flame</i> , 2013, 160, 808-817.	5.2	31
182	Ni based oxygen carrier over Î³-Al ₂ O ₃ for chemical looping combustion: Effect of preparation method on metal support interaction. <i>Catalysis Today</i> , 2013, 210, 124-134.	4.4	32
183	Evaluation of a power plant with chemical looping combustion using an advanced exergoeconomic analysis. <i>Sustainable Energy Technologies and Assessments</i> , 2013, 3, 9-16.	2.7	38
184	Chemical looping gasification of solid fuels using bimetallic oxygen carrier particles â€“ Feasibility assessment and process simulations. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 7839-7854.	7.1	46

#	ARTICLE	IF	CITATIONS
185	Modeling of Cu oxidation in adiabatic fixed-bed reactor with N ₂ recycling in a Ca/Cu chemical loop. Chemical Engineering Journal, 2013, 232, 442-452.	12.7	29
186	Application of random pore model for synthesis gas production by nickel oxide reduction with methane. Energy Conversion and Management, 2013, 74, 249-260.	9.2	16
187	Chemical-Looping Combustion of Solid Fuels – Operational Experiences in 100kW Dual Circulating Fluidized Bed System. Energy Procedia, 2013, 37, 608-617.	1.8	9
188	Chemical-looping combustion of solid fuels in a 10 kW reactor system using natural minerals as oxygen carrier. Energy Procedia, 2013, 37, 598-607.	1.8	37
189	CFD modeling to study fluidized bed combustion and gasification. Applied Thermal Engineering, 2013, 52, 585-614.	6.0	177
190	On the high gasification rate of Brazilian manganese ore in chemical looping combustion (CLC) for solid fuels. AIChE Journal, 2013, 59, 4346-4354.	3.6	26
191	Coal direct chemical looping combustion process: Design and operation of a 25-kWth sub-pilot unit. Fuel, 2013, 108, 370-384.	6.4	118
192	Reduction Kinetics of Perovskite-Based Oxygen Carriers for Chemical Looping Combustion. Industrial & Engineering Chemistry Research, 2013, 52, 6946-6955.	3.7	25
193	Bimetallic Fe–Ni Oxygen Carriers for Chemical Looping Combustion. Industrial & Engineering Chemistry Research, 2013, 52, 15342-15352.	3.7	65
194	Performance of Hematite/Ca ₂ Al ₂ SiO ₇ Oxygen Carrier in Chemical Looping Combustion of Coal. Industrial & Engineering Chemistry Research, 2013, 52, 7350-7361.	3.7	15
195	Rate based modeling of absorption and regeneration for CO ₂ capture by aqueous ammonia solution. Applied Energy, 2013, 111, 142-152.	10.1	93
196	Capturing CO ₂ in flue gas from fossil fuel-fired power plants using dry regenerable alkali metal-based sorbent. Progress in Energy and Combustion Science, 2013, 39, 515-534.	31.2	179
197	Iron Oxide with Facilitated O ²⁺ Transport for Facile Fuel Oxidation and CO ₂ Capture in a Chemical Looping Scheme. ACS Sustainable Chemistry and Engineering, 2013, 1, 364-373.	6.7	116
198	Nickel oxide redox processes with oxide ion conductor-supported nickel oxide in dry and humidified methane: Effect of oxide ion conductors on induction period in nickel oxide reduction and subsequent hydrogen production. Fuel, 2013, 104, 691-697.	6.4	16
199	Review of Oxygen Carriers for Chemical Looping with Oxygen Uncoupling (CLOU): Thermodynamics, Material Development, and Synthesis. Energy Technology, 2013, 1, 633-647.	3.8	167
200	Reducible Supports for Ni-based Oxygen Carriers in Chemical Looping Combustion. Energy & Fuels, 2013, 27, 2073-2084.	5.1	57
201	Thermogravimetric Analysis of Modified Hematite by Methane (CH ₄) for Chemical-Looping Combustion: A Global Kinetics Mechanism. Industrial & Engineering Chemistry Research, 2013, 52, 14808-14816.	3.7	31
202	Rotary Bed Reactor for Chemical-Looping Combustion with Carbon Capture. Part 2: Base Case and Sensitivity Analysis. Energy & Fuels, 2013, 27, 344-359.	5.1	21

#	ARTICLE	IF	CITATIONS
203	Chemical Looping Combustion and Chemical Looping with Oxygen Uncoupling Experiments in a Batch Reactor Using Spray-Dried $\text{CaMn}_{0.875}\text{Ti}_{0.125}\text{O}_{3-\delta}$ ($M = \text{Ti}$) $\text{Fe}_{1-x}\text{O}_{3-\delta}$ / Overl	5.1	14
204	Process Simulation and Validation of Chemical-Looping with Oxygen Uncoupling (CLOU) Process using Cu-Based Oxygen Carrier. Energy & Fuels, 2013, 27, 6906-6912.	5.1	14
205	Reduction Kinetics of Cu-Based Oxygen Carriers for Chemical Looping Air Separation. Energy & Fuels, 2013, 27, 5466-5474.	5.1	60
206	Fossil Energy. , 2013, , .		5
207	$\text{Ca}_{1-x}\text{La}_x\text{Mn}_{1-y}\text{Mg}_y\text{O}_{3-\delta}$ ($M = \text{Mg, Ti, Fe, or Cu}$) as Oxygen Carriers for Chemical-Looping with Oxygen Uncoupling (CLOU). Energy & Fuels, 2013, 27, 4097-4107.	5.1	54
208	Investigation of Combined Supports for Cu-Based Oxygen Carriers for Chemical-Looping with Oxygen Uncoupling (CLOU). Energy & Fuels, 2013, 27, 3918-3927.	5.1	65
209	Syngas Generation from Methane Using a Chemical-Looping Concept: A Review of Oxygen Carriers. Journal of Chemistry, 2013, 2013, 1-8.	1.9	11
210	Activity of Fe_2O_3 and its Effect on Co Oxidation in the Chemical Looping Combustion: An Theoretical Account. Advanced Materials Research, 0, 726-731, 2040-2044.	0.3	3
211	The Preparation Methods of $\text{Fe}_2\text{O}_3/\text{Al}_2\text{O}_3$ and $\text{Fe}_2\text{O}_3/\text{Al}_2\text{O}_3$ Oxygen Carriers and their Chemical Looping Combustion Performance. Advanced Materials Research, 0, 724-725, 1145-1149.	0.3	1
212	Initial reduction of the $\text{NiO}(100)$ surface in hydrogen. Journal of Chemical Physics, 2013, 139, 024704.	3.0	9
213	PERFORMANCE AND APPARENT REDOX KINETIC OF A CU-BASED OXYGEN CARRIER FOR CHEMICAL LOOPING OXYGEN PRODUCTION. Functional Materials Letters, 2013, 06, 1350022.	1.2	3
214	Acceleration of Fe_2O_3 Reduction Kinetics by Wet Methane with Calcium Titanate as Support. Chemistry Letters, 2013, 42, 1438-1440.	1.3	8
215	$\text{CaMn}_{0.875}\text{Ti}_{0.125}\text{O}_{3-\delta}$ as an Oxygen Carrier for Chemical-Looping with Oxygen Uncoupling (CLOU) Solid-Fuel Testing and Sulfur Interaction. Energy Technology, 2013, 1, 338-344.	3.8	22
216	Characteristics of Gas Generation of Chemical Looping Gasification and Combustion for Coal Conversion. Journal of the Society of Powder Technology, Japan, 2013, 50, 190-196.	0.1	1
217	Materials for Chemical-Looping with Oxygen Uncoupling. ISRN Chemical Engineering, 2013, 2013, 1-19.	1.2	108
218	Gasification Coupled Chemical Looping Combustion of Coal: A Thermodynamic Process Design Study. ISRN Chemical Engineering, 2013, 2013, 1-11.	1.2	0
219	Combustion and Reforming of Ethanol in a Chemical Looping Continuous Unit. Energy Procedia, 2014, 63, 53-62.	1.8	11
220	Process and Reactor Level Simulations of Coal-Direct Chemical-looping Combustion. , 2014, , 329-362.		0

#	ARTICLE	IF	CITATIONS
221	Carbon Capture and Storage Development Trends from a Techno-Paradigm Perspective. <i>Energies</i> , 2014, 7, 5221-5250.	3.1	22
222	Preparation of Large Granular Cu-Based Oxygen Carriers by Mechanical Mixing for Packed Bed Chemical-Looping Combustion. <i>Energy & Fuels</i> , 2014, 28, 7662-7671.	5.1	3
223	Sulfur Tolerance and Rate of Oxygen Release of Combined Mn-Si Oxygen Carriers in Chemical-Looping with Oxygen Uncoupling (CLOU). <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 19488-19497.	3.7	14
224	Effects of Concentration, Crystal Structure, Magnetism, and Electronic Structure Method on First-Principles Oxygen Vacancy Formation Energy Trends in Perovskites. <i>Journal of Physical Chemistry C</i> , 2014, 118, 28776-28790.	3.1	105
225	Comparison of preparation methods for iron-alumina oxygen carrier and its reduction kinetics with hydrogen in chemical looping combustion. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2014, 9, 610-622.	1.5	13
226	Three-dimensional CFD simulation of hydrodynamics in an interconnected fluidized bed for chemical looping combustion. <i>Powder Technology</i> , 2014, 268, 316-328.	4.2	70
227	Comparison of Large-Scale Production Methods of $\text{Fe}_2\text{O}_3/\text{Al}_2\text{O}_3$ Oxygen Carriers for Chemical-Looping Combustion. <i>Chemical Engineering and Technology</i> , 2014, 37, 1211-1219.	1.5	24
228	Evaluation of iron- and manganese-based mono- and mixed-metallic oxygen carriers for chemical looping combustion. <i>Fuel</i> , 2014, 136, 268-279.	6.4	60
229	Material balances of carbon, sulfur, nitrogen and ilmenite in a 100kW CLC reactor system. <i>International Journal of Greenhouse Gas Control</i> , 2014, 27, 188-202.	4.6	65
230	Ethylation of Ethylbenzene with Ethanol over Mordenite-Based Catalysts: Effects of Acidity, Desilication and Kinetics Analysis. <i>International Journal of Chemical Reactor Engineering</i> , 2014, 12, 487-496.	1.1	1
231	A hybrid solar chemical looping combustion system with a high solar share. <i>Applied Energy</i> , 2014, 126, 69-77.	10.1	33
232	Mechanism study of reaction between CO and NiO(0 0 1) surface during chemical-looping combustion: Role of oxygen. <i>Chemical Engineering Journal</i> , 2014, 244, 464-472.	12.7	27
233	Carbon dioxide emission reduction using molten carbonate fuel cell systems. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 32, 178-191.	16.4	69
234	Heterogeneous modeling of chemical-looping combustion. Part 2: Particle model. <i>Chemical Engineering Science</i> , 2014, 113, 116-128.	3.8	43
235	Interaction of mineral matter of coal with oxygen carriers in chemical-looping combustion (CLC). <i>Chemical Engineering Research and Design</i> , 2014, 92, 1753-1770.	5.6	47
236	Investigation of different manganese ores as oxygen carriers in chemical-looping combustion (CLC) for solid fuels. <i>Applied Energy</i> , 2014, 113, 1883-1894.	10.1	124
237	Rotating bed reactor for CLC: Bed characteristics dependencies on internal gas mixing. <i>Applied Energy</i> , 2014, 113, 1952-1957.	10.1	14
238	Numerical evaluation of a one-dimensional two-fluid model applied to gas-solid cold-flows in fluidised beds. <i>Canadian Journal of Chemical Engineering</i> , 2014, 92, 401-420.	1.7	4

#	ARTICLE	IF	CITATIONS
239	Natural iron ore as an oxygen carrier for biomass chemical looping gasification in a fluidized bed reactor. <i>Journal of Thermal Analysis and Calorimetry</i> , 2014, 116, 1315-1324.	3.6	36
240	Methane dry reformer by application of chemical looping combustion via Mn-based oxygen carrier for heat supplying and carbon dioxide providing. <i>Chemical Engineering and Processing: Process Intensification</i> , 2014, 79, 69-79.	3.6	8
241	Design of a rotary reactor for chemical-looping combustion. Part 1: Fundamentals and design methodology. <i>Fuel</i> , 2014, 121, 327-343.	6.4	41
242	Modeling on the hydrodynamics of pressurized high-flux circulating fluidized beds (PHFCFBs) by Eulerian–Lagrangian approach. <i>Powder Technology</i> , 2014, 259, 52-64.	4.2	24
243	Kinetics of NiO reduction by H ₂ and Ni oxidation at conditions relevant to chemical-looping combustion and reforming. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 8535-8556.	7.1	88
244	Kinetics of Iron Ore Reduction by Methane for Chemical Looping Combustion. <i>Energy & Fuels</i> , 2014, 28, 1387-1395.	5.1	48
245	Chemical-looping combustion of solid fuels – Status of development. <i>Applied Energy</i> , 2014, 113, 1869-1873.	10.1	336
246	Biomass Char Direct Chemical Looping Gasification Using NiO-Modified Iron Ore as an Oxygen Carrier. <i>Energy & Fuels</i> , 2014, 28, 183-191.	5.1	118
247	Integrated biomass torrefaction – Chemical looping combustion as a method to recover torrefaction volatiles energy. <i>Fuel</i> , 2014, 116, 158-167.	6.4	55
248	Carbon capture and storage update. <i>Energy and Environmental Science</i> , 2014, 7, 130-189.	30.8	1,765
249	Spent Isopropanol Solution as Possible Liquid Fuel for Moving Bed Reactor in Chemical Looping Combustion. <i>Energy & Fuels</i> , 2014, 28, 657-665.	5.1	12
250	Enhanced reducibility and redox stability of Fe ₂ O ₃ in the presence of CeO ₂ nanoparticles. <i>RSC Advances</i> , 2014, 4, 47191-47199.	3.6	70
251	Copper–manganese mixed oxides: CO ₂ -selectivity, stable, and cyclic performance for chemical looping combustion of methane. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 19634-19642.	2.8	31
252	Conceptual design of a Ni-based chemical looping combustion process using fixed-beds. <i>Applied Energy</i> , 2014, 135, 309-319.	10.1	39
253	CaZrO ₃ and SrZrO ₃ -based CuO Oxygen Carriers for Chemical-looping with Oxygen Uncoupling (CLOU). <i>Energy Procedia</i> , 2014, 51, 75-84.	1.8	10
254	Fe ₂ O ₃ @La _x Sr _{1-x} FeO ₃ Core–Shell Redox Catalyst for Methane Partial Oxidation. <i>ChemCatChem</i> , 2014, 6, 790-799.	3.7	108
255	Chemical-looping processes for fuel-flexible combustion and fuel production. , 2014, , 233-280.		6
256	Fe/Mg Silicate Mining Residues as Solid Oxygen Carriers for Chemical Looping Combustion of Torrefaction Volatiles. <i>Energy & Fuels</i> , 2014, 28, 1983-1991.	5.1	7

#	ARTICLE	IF	CITATIONS
257	Sorbent enhanced hydrogen production from steam gasification of coal integrated with CO ₂ capture. International Journal of Hydrogen Energy, 2014, 39, 17001-17008.	7.1	29
258	Sulfur Tolerance of Ca _x Mn _{1-x} M _y O _{3-δ} (M = Mg, Ti) Perovskite-Type Oxygen Carriers in Chemical-Looping with Oxygen Uncoupling (CLOU). Energy & Fuels, 2014, 28, 1312-1324.	5.1	37
259	GAS-SOLID FLOW BEHAVIOR IN A PRESSURIZED HIGH-FLUX CIRCULATING FLUIDIZED BED RISER. Chemical Engineering Communications, 2014, 201, 352-366.	2.6	19
260	Reaction Characteristics of CO and Sintering Ore Used as an Oxygen Carrier in Chemical Looping Combustion. Energy & Fuels, 2014, 28, 6066-6076.	5.1	6
261	Use of Low-Volatile Solid Fuels in a 100 kW Chemical-Looping Combustor. Energy & Fuels, 2014, 28, 5942-5952.	5.1	60
262	Chemical looping combustion of polyurethane and polypropylene in an annular dual-tube moving bed reactor with iron-based oxygen carrier. Fuel, 2014, 135, 146-152.	6.4	16
263	Aspen Plus simulations of fluidised beds for chemical looping combustion. Fuel, 2014, 136, 46-56.	6.4	28
264	Reduction and Oxidation Kinetics of a CaMn _{0.9} Mg _{0.1} O _{3-δ} Oxygen Carrier for Chemical-Looping Combustion. Industrial & Engineering Chemistry Research, 2014, 53, 87-103.	3.7	70
265	Influence of the Type of Oxygen Carriers on the Performance of a Hybrid Solar Chemical Looping Combustion System. Energy & Fuels, 2014, 28, 2914-2924.	5.1	20
266	The energetic performance of a novel hybrid solar thermal & chemical looping combustion plant. Applied Energy, 2014, 132, 74-85.	10.1	36
267	Mass, energy, and exergy balance analysis of chemical looping with oxygen uncoupling (CLOU) process. Energy Conversion and Management, 2014, 87, 483-494.	9.2	30
268	Chemical looping beyond combustion: production of synthesis gas via chemical looping partial oxidation of methane. RSC Advances, 2014, 4, 47254-47267.	3.6	114
269	Experimental Study of Chemical-Looping Reforming in a Fixed-Bed Reactor: Performance Investigation of Different Oxygen Carriers on Al ₂ O ₃ and TiO ₂ Support. Energy & Fuels, 2014, 28, 2811-2820.	5.1	48
270	Mechanism of Fe ₂ TiO ₅ as oxygen carrier for chemical looping process and evaluation for hydrogen generation. Ceramics International, 2014, 40, 4599-4605.	4.8	24
271	Chemical-Looping Combustion With Gaseous Fuels: Thermodynamic Parametric Modeling. Arabian Journal for Science and Engineering, 2014, 39, 3415-3421.	1.1	5
272	Modeling of Oxidation and Reduction of a Copper-Based Oxygen Carrier. Energy & Fuels, 2014, 28, 5434-5444.	5.1	18
273	Thermodynamic and experimental aspects on chemical looping reforming of ethanol for hydrogen production using a Cu-based oxygen carrier. International Journal of Energy Research, 2014, 38, 1192-1200.	4.5	11
274	The use of ilmenite as oxygen carrier with kerosene in a 300 W CLC laboratory reactor with continuous circulation. Applied Energy, 2014, 113, 1846-1854.	10.1	58

#	ARTICLE	IF	CITATIONS
275	A novel dimensionless form of unreacted shrinking core model for solid conversion during chemical looping combustion. <i>Fuel</i> , 2014, 129, 231-237.	6.4	17
276	Modeling of CH ₄ combustion with NiO/NiAl ₂ O ₄ in a 10 kWth CLC pilot plant. <i>Applied Energy</i> , 2014, 113, 1933-1944.	10.1	18
277	Conversion of metallurgical coke and coal using a Coal Direct Chemical Looping (CDCL) moving bed reactor. <i>Applied Energy</i> , 2014, 118, 300-308.	10.1	52
278	Modeling of Cu oxidation in an adiabatic fixed-bed reactor with N ₂ recycling. <i>Applied Energy</i> , 2014, 113, 1945-1951.	10.1	26
279	TGA-FTIR investigation of chemical looping combustion by coal with CoFe ₂ O ₄ combined oxygen carrier. <i>Journal of Analytical and Applied Pyrolysis</i> , 2014, 105, 369-378.	5.5	42
280	Methane combustion by moving bed fuel reactor with Fe ₂ O ₃ /Al ₂ O ₃ oxygen carriers. <i>Applied Energy</i> , 2014, 113, 1909-1915.	10.1	51
281	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.	5.3	9
282	Gas and solid flow patterns in the loop-seal of a circulating fluidized bed. <i>Powder Technology</i> , 2014, 264, 197-202.	4.2	31
283	Apparent kinetics derived from fluidized bed experiments for Norwegian ilmenite as oxygen carrier. <i>Journal of Environmental Chemical Engineering</i> , 2014, 2, 1131-1141.	6.7	18
284	A Ceramic-Membrane-Based Methane Combustion Reactor With Tailored Function of Simultaneous Separation of Carbon Dioxide From Nitrogen. , 2014, , .		0
285	A Ceramic-Membrane-Based Methane Combustion Reactor With Tailored Function of Simultaneous Separation of Carbon Dioxide From Nitrogen. , 2014, , .		0
286	Ferrites as RedOx Catalysts for Chemical Looping and Thermochemical Water Splitting Processes. Funtai Oyobi Fumatsu Yakin/ <i>Journal of the Japan Society of Powder and Powder Metallurgy</i> , 2014, 61, S173-S175.	0.2	3
287	Chemical-looping Combustion of Solid Fuels – Technology Overview and Recent Operational Results in 100 kW Unit. <i>Energy Procedia</i> , 2014, 63, 98-112.	1.8	34
291	Mixed Oxides of Iron and Manganese as Potential Low-Cost Oxygen Carriers for Chemical Looping Combustion. <i>Energy Technology</i> , 2015, 3, 856-865.	3.8	21
292	Synthesis gas production with simultaneous CO ₂ capturing and consuming: Application of chemical looping combustion by employing Fe ₄ Al ₂ O ₃ and Mn ₄ O/Mg-ZrO ₂ oxygen carriers. <i>Canadian Journal of Chemical Engineering</i> , 2015, 93, 2124-2134.	1.7	3
293	Chemical-Looping Combustion and Gasification of Coals and Oxygen Carrier Development: A Brief Review. <i>Energies</i> , 2015, 8, 10605-10635.	3.1	88
295	Evaluation of CuO/MgAl ₂ O ₄ in Biomass Chemical Looping Gasification with Oxygen Uncoupling. <i>BioResources</i> , 2015, 11, .	1.0	15
296	Emerging CO ₂ capture systems. <i>International Journal of Greenhouse Gas Control</i> , 2015, 40, 126-166.	4.6	352

#	ARTICLE	IF	CITATIONS
297	Energy and exergy pertaining to solid looping cycles. , 2015, , 15-38.		0
298	CFD modeling of riser with Group B particles. Powder Technology, 2015, 283, 519-529.	4.2	10
299	Ca-Cu looping process for CO ₂ capture from a power plant and its comparison with Ca-looping, oxy-combustion and amine-based CO ₂ capture processes. International Journal of Greenhouse Gas Control, 2015, 43, 198-212.	4.6	40
300	Efficient cycles for carbon capture CLC power plants based on thermally balanced redox reactors. International Journal of Greenhouse Gas Control, 2015, 41, 302-315.	4.6	9
301	Hydrogen production in an environmental-friendly process by application of chemical looping combustion via Ni- and Fe-Based oxygen carriers. Theoretical Foundations of Chemical Engineering, 2015, 49, 884-900.	0.7	7
302	Transient Reacting Flow Simulation of Spouted Fluidized Bed for Coal-Direct Chemical Looping Combustion. Journal of Thermal Science and Engineering Applications, 2015, 7, .	1.5	9
303	Chemical looping technology platform. AIChE Journal, 2015, 61, 2-22.	3.6	173
304	Riser hydrodynamic study with different Group B powders. Powder Technology, 2015, 272, 300-308.	4.2	9
305	Study of the performances of an oxygen carrier: Experimental investigation of the binder's contribution and characterization of its structural modifications. Comptes Rendus Chimie, 2015, 18, 45-55.	0.5	7
306	NiO supported on Al ₂ O ₃ and ZrO ₂ oxygen carriers for chemical looping steam methane reforming. International Journal of Hydrogen Energy, 2015, 40, 7490-7501.	7.1	92
307	Investigation of various catalysts for partial oxidation of tar from biomass gasification. Applied Catalysis A: General, 2015, 493, 121-128.	4.3	9
308	Simultaneous syngas production with different H ₂ /CO ratio in a multi-tubular methane steam and dry reformer by utilizing of CLC. Journal of Energy Chemistry, 2015, 24, 54-64.	12.9	11
309	A novel polygeneration process to co-produce ethylene and electricity from shale gas with zero CO ₂ emissions via methane oxidative coupling. Energy Conversion and Management, 2015, 92, 406-420.	9.2	59
310	CFD-DEM simulation of solid circulation rate in the cold flow model of chemical looping systems. Chemical Engineering Research and Design, 2015, 95, 262-280.	5.6	50
311	Investigation of the Kinetics of Carbonation Reaction with Cao-Based Sorbents Using Experiments and Aspen Plus Simulation. Chemical Engineering Communications, 2015, 202, 746-755.	2.6	27
312	Reduction Kinetics of Fe ₂ O ₃ /Al ₂ O ₃ by Ultralow Concentration Methane under Conditions Pertinent to Chemical Looping Combustion. Energy & Fuels, 2015, 29, 337-345.	5.1	40
313	Feasible utility of inorganic remains from potable water purification process in chemical looping combustion studied in TG. Journal of Thermal Analysis and Calorimetry, 2015, 120, 457-470.	3.6	6
314	Analysis of thermally coupled chemical looping combustion-based power plants with carbon capture. International Journal of Greenhouse Gas Control, 2015, 35, 56-70.	4.6	18

#	ARTICLE	IF	CITATIONS
315	Analysis of oxygen releasing rate of Cu-based oxygen carrier in N ₂ –O ₂ atmosphere. Journal of Thermal Analysis and Calorimetry, 2015, 119, 2221-2227.	3.6	5
316	Comprehensive Study of Fe ₂ O ₃ /Al ₂ O ₃ Reduction with Ultralow Concentration Methane under Conditions Pertinent to Chemical Looping Combustion. Energy & Fuels, 2015, 29, 1951-1960.	5.1	5
317	Capture of CO ₂ from coal using chemical-looping combustion: Process simulation. Korean Journal of Chemical Engineering, 2015, 32, 373-382.	2.7	5
318	Reactor design and operation strategies for a large-scale packed-bed CLC power plant with coal syngas. International Journal of Greenhouse Gas Control, 2015, 36, 34-50.	4.6	53
319	Progress in oxygen carrier development of methane-based chemical-looping reforming: A review. Applied Energy, 2015, 151, 143-156.	10.1	416
320	Hydrogen production from chemical looping steam reforming of glycerol by Ni-based oxygen carrier in a fixed-bed reactor. Chemical Engineering Journal, 2015, 280, 459-467.	12.7	86
321	Promotion Effects of La ₂ O ₃ on Ni/Al ₂ O ₃ Catalysts for CO ₂ Methanation. Advanced Materials Research, 0, 1118, 205-210.	0.3	3
322	Chemical looping combustion of gaseous fuels. , 2015, , 255-285.		1
323	Solid oxide fuel cells fueled with reduced Fe/Ti oxide. Journal of Materials Chemistry A, 2015, 3, 2242-2250.	10.3	7
324	Oxygen carriers for chemical-looping combustion. , 2015, , 221-254.		15
325	Catalytic chemical looping combustion of carbon with an iron-based oxygen carrier modified by K ₂ CO ₃ : Catalytic mechanism and multicycle tests. Fuel Processing Technology, 2015, 135, 119-124.	7.2	39
326	A systematic investigation of the performance of copper-, cobalt-, iron-, manganese- and nickel-based oxygen carriers for chemical looping combustion technology through simulation models. Chemical Engineering Science, 2015, 130, 79-91.	3.8	36
327	Influence of the regeneration conditions on the performances and the microstructure modifications of NiO/NiAl ₂ O ₄ for chemical looping combustion. Fuel, 2015, 153, 284-293.	6.4	19
328	Coal gasification integration with solid oxide fuel cell and chemical looping combustion for high-efficiency power generation with inherent CO ₂ capture. Applied Energy, 2015, 146, 298-312.	10.1	92
329	Synthesis Gas Generation by Chemical-Looping Reforming of Biomass with Natural Copper Ore as Oxygen Carrier. Waste and Biomass Valorization, 2015, 6, 81-89.	3.4	32
330	A Feasibility Study for Synthesis Gas Production by Considering Carbon Dioxide Capturing in an Industrial-Scale Methanol Synthesis Plant. Arabian Journal for Science and Engineering, 2015, 40, 1255-1268.	1.1	5
331	Combined calcium looping and chemical looping combustion cycles with CaO–CuO pellets in a fixed bed reactor. Fuel, 2015, 153, 202-209.	6.4	41
332	CuO promoted Mn ₂ O ₃ -based materials for solid fuel combustion with inherent CO ₂ capture. Journal of Materials Chemistry A, 2015, 3, 10545-10550.	10.3	33

#	ARTICLE	IF	CITATIONS
333	Modeling defect transport during Cu oxidation. Corrosion Science, 2015, 99, 53-65.	6.6	18
334	Transient reacting flow simulation of spouted fluidized bed for coal-direct chemical looping combustion with different Fe-based oxygen carriers. Applied Energy, 2015, 160, 552-560.	10.1	55
335	Perovskite ceramics and recent experimental progress in reactor design for chemical looping combustion application. Chemical Papers, 2015, 69, .	2.2	5
336	Perovskite-type catalytic materials for environmental applications. Science and Technology of Advanced Materials, 2015, 16, 036002.	6.1	144
337	Thermal efficiency of coal-fired power plants: From theoretical to practical assessments. Energy Conversion and Management, 2015, 105, 530-544.	9.2	52
338	Simultaneous CO ₂ capture and H ₂ generation using Fe ₂ O ₃ /Al ₂ O ₃ and Fe ₂ O ₃ /CuO/Al ₂ O ₃ as oxygen carriers in single packed bed reactor via chemical looping process. Frontiers of Environmental Science and Engineering, 2015, 9, 1117-1129.	6.0	8
339	NiO/MWCNT Catalysts for Electrochemical Reduction of CO ₂ . Electrocatalysis, 2015, 6, 544-553.	3.0	18
340	Fe-Mn based minerals with remarkable redox characteristics for chemical looping combustion. Fuel, 2015, 159, 169-178.	6.4	39
341	Fluidizable NiO/Ce- γ -Al ₂ O ₃ Oxygen Carrier for Chemical Looping Combustion. Energy & Fuels, 2015, 29, 6095-6103.	5.1	11
342	Effect of hematite addition to CaSO ₄ oxygen carrier in chemical looping combustion of coal char. RSC Advances, 2015, 5, 56362-56376.	3.6	32
343	Capturing and using CO ₂ as feedstock with chemical looping and hydrothermal technologies. International Journal of Energy Research, 2015, 39, 1011-1047.	4.5	45
344	Iron oxide redox reaction with oxide ion conducting supports for hydrogen production and storage systems. Chemical Engineering Science, 2015, 123, 380-387.	3.8	47
345	Performance analysis of a feasible technology for power and high-purity hydrogen production driven by methane fuel. Applied Thermal Engineering, 2015, 75, 103-114.	6.0	48
346	Matching of kinetics of CaCO ₃ decomposition and CuO reduction with CH ₄ in Ca-Cu chemical looping. Chemical Engineering Journal, 2015, 262, 665-675.	12.7	52
347	Prediction of formation of gas-phase bubbles correlated by vortices in the fuel reactor of chemical looping combustion. Fuel Processing Technology, 2015, 130, 235-244.	7.2	6
348	Effect of support on redox stability of iron oxide for chemical looping conversion of methane. Applied Catalysis B: Environmental, 2015, 164, 371-379.	20.2	137
349	Numerical modelling of oxy fuel combustion, the effect of radiative and convective heat transfer and burnout. Fuel, 2015, 139, 268-284.	6.4	86
350	A journey into the process and engineering aspects of carbon capture technologies. Renewable and Sustainable Energy Reviews, 2015, 41, 1324-1350.	16.4	163

#	ARTICLE	IF	CITATIONS
351	Fabrication of Fe ₂ O ₃ /TiO ₂ Oxygen Carriers for Chemical Looping Combustion and Hydrogen Generation. Aerosol and Air Quality Research, 2016, 16, 2023-2032.	2.1	7
352	Advanced Process Combination Concepts. , 2016, , 55-97.		1
353	Fluidized Bed Combustion. , 2016, , .		2
354	Study on Reaction Characteristics of Chemical-Looping Combustion between Maize Stalk and High Index Facet Iron Oxide. Energies, 2016, 9, 656.	3.1	2
355	Advancement of an Infra-Red Technique for Whole-Field Concentration Measurements in Fluidized Beds. Sensors, 2016, 16, 300.	3.8	6
356	Commercial liquid absorbent-based PCC processes. , 2016, , 757-778.		7
357	Iron–Nickel Alloys for Carbon Dioxide Activation by Chemical Looping Dry Reforming of Methane. Energy Technology, 2016, 4, 1147-1157.	3.8	51
358	Innovative Internally Circulating Reactor Concept for Chemical Looping–Based CO ₂ Capture Processes: Hydrodynamic Investigation. Chemical Engineering and Technology, 2016, 39, 1413-1424.	1.5	19
359	Redox property and kinetics of copper oxygen carrier under different oxygen concentrations. Environmental Progress and Sustainable Energy, 2016, 35, 531-539.	2.3	2
360	Model–based analysis of chemical–looping combustion experiments. Part I: Structural identifiability of kinetic models for NiO reduction. AIChE Journal, 2016, 62, 2419-2431.	3.6	34
361	Redox Reaction Kinetics of Fe ₂ O ₃ by Hydrogen and Water with Oxide Ion Conducting Supports and Oxygen Transport Modeling for Fe ₂ O ₃ Reduction Process. Journal of Chemical Engineering of Japan, 2016, 49, 243-250.	0.6	9
362	Reduction mechanism of iron titanium based oxygen carriers with H ₂ for chemical looping applications – a combined experimental and theoretical study. RSC Advances, 2016, 6, 106340-106346.	3.6	10
363	The Chemical-Looping Combustion of Propane with Iron (III) Oxide as an Oxygen Carrier. Combustion Science and Technology, 2016, 188, 953-967.	2.3	1
364	Evaluation of multi-cycle performance of chemical looping dry reforming using CO ₂ as an oxidant with Fe–Ni bimetallic oxides. Journal of Energy Chemistry, 2016, 25, 62-70.	12.9	71
365	Theoretical study of stability and reaction mechanism of CuO supported on ZrO ₂ during chemical looping combustion. Applied Surface Science, 2016, 367, 485-492.	6.1	55
366	Oxygen Storage Properties of La _{1-x} Sr _x FeO ₃ for Chemical-Looping Reactions—An In Situ Neutron and Synchrotron X-ray Study. Chemistry of Materials, 2016, 28, 3951-3960.	6.7	57
367	Comparative exergy analysis of chemical looping combustion thermally coupled and conventional steam methane reforming for hydrogen production. Journal of Cleaner Production, 2016, 131, 247-258.	9.3	99
368	Progress in carbon fuel cells for clean coal technology pipeline. International Journal of Energy Research, 2016, 40, 13-29.	4.5	21

#	ARTICLE	IF	CITATIONS
369	Nickel Oxides Supported on Alumina as Oxygen Carriers for Chemical-Looping Combustion and Reforming of Methane. <i>Applied Mechanics and Materials</i> , 0, 830, 30-37.	0.2	2
370	Recent progress and innovation in carbon capture and storage using bioinspired materials. <i>Applied Energy</i> , 2016, 172, 383-397.	10.1	28
371	Screening of NiFe_2O_4 Nanoparticles as Oxygen Carrier in Chemical Looping Hydrogen Production. <i>Energy & Fuels</i> , 2016, 30, 4251-4262.	5.1	91
372	Techno-economic investigation of a chemical looping combustion based power plant. <i>Faraday Discussions</i> , 2016, 192, 437-457.	3.2	35
373	Development of NiO-Based Oxygen Carrier Materials: Effect of Support on Redox Behavior and Carbon Deposition in Methane. <i>Energy & Fuels</i> , 2016, 30, 8597-8612.	5.1	24
374	Dynamic optimization of fixed bed chemical-looping combustion processes. <i>Energy</i> , 2016, 112, 1107-1119.	8.8	39
375	Investigation on reactivity of iron nickel oxides in chemical looping dry reforming. <i>Energy</i> , 2016, 116, 53-63.	8.8	60
376	Conceptual and feasibility study on lab-scale series power generation by carbon-air and conventional solid oxide fuel cells. <i>Journal of Power Sources</i> , 2016, 329, 510-515.	7.8	9
377	Activity of Fe_2O_3 with a high index facet for bituminous coal chemical looping combustion: a theoretical and experimental study. <i>RSC Advances</i> , 2016, 6, 85551-85558.	3.6	10
378	Reduction kinetics of lanthanum ferrite perovskite for the production of synthesis gas by chemical-looping methane reforming. <i>Chemical Engineering Science</i> , 2016, 153, 236-245.	3.8	53
379	Performance of Perovskite-Type Oxides as Oxygen-Carrier Materials for Chemical Looping Combustion in the Presence of H_2S . <i>Energy Technology</i> , 2016, 4, 1305-1316.	3.8	23
380	Investigation of a calcium manganite as oxygen carrier during 99 h of operation of chemical-looping combustion in a 10 kW th reactor unit. <i>International Journal of Greenhouse Gas Control</i> , 2016, 53, 222-229.	4.6	47
381	Thermal stability study of NiAl_2O_4 binders for Chemical Looping Combustion application. <i>Fuel</i> , 2016, 182, 50-56.	6.4	13
382	Recent advances in multi-layer composite polymeric membranes for CO_2 separation: A review. <i>Green Energy and Environment</i> , 2016, 1, 102-128.	8.7	215
383	Mechanically Stable Mixed Metal Oxide of Cu and Mn as Oxygen Carrier for Chemical Looping Syngas Combustion. <i>Energy & Fuels</i> , 2016, 30, 7596-7603.	5.1	27
384	Temperature-programmed reduction of nickel steam reforming catalyst with glucose. <i>Applied Catalysis A: General</i> , 2016, 527, 1-8.	4.3	29
385	Comparison of hazelnut and peanut shells combustion in bubbling fluidized-bed combustor. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2016, 38, 2272-2281.	2.3	2
386	Pressurized chemical looping combustion with CO: Reduction reactivity and oxygen-transport capacity of ilmenite ore. <i>Applied Energy</i> , 2016, 184, 132-139.	10.1	29

#	ARTICLE	IF	CITATIONS
387	Effects of ZnO Addition on Fe ₂ O ₃ /Al ₂ O ₃ Oxygen Carriers on CH ₄ Reduction for Chemical Looping Combustion. Materials Science Forum, 0, 872, 196-200.	0.3	1
388	Multicycle investigation of a sol-gel derived Fe ₂ O ₃ /ATP oxygen carrier for coal chemical looping combustion. AIChE Journal, 2016, 62, 996-1006.	3.6	15
389	Thermodynamic analysis of in situ gasification-chemical looping combustion (iG-CLC) of Indian coal. Environmental Science and Pollution Research, 2016, 23, 20111-20119.	5.3	2
390	Na ⁺ doping induced changes in the reduction and charge transport characteristics of Al ₂ O ₃ -stabilized, CuO-based materials for CO ₂ capture. Physical Chemistry Chemical Physics, 2016, 18, 12278-12288.	2.8	16
391	Significant Lanthanoid Substitution Effect on the Redox Reactivity of the Oxygen-Storage Material BaYMn ₂ O ₅ . Chemistry of Materials, 2016, 28, 4409-4414.	6.7	21
392	Experimental demonstration of control strategies for a Gas Switching Combustion reactor for power production with integrated CO ₂ capture. Chemical Engineering Research and Design, 2016, 111, 342-352.	5.6	4
393	Qualitative numerical study of simultaneous high-G-intensified gas-solids contact, separation and segregation in a bi-disperse rotating fluidized bed in a vortex chamber. Advanced Powder Technology, 2016, 27, 1453-1463.	4.1	19
394	Oxidation of copper at high temperature as an example for gas-solid reactions in a downer reactor – experiments and model-based analysis. Chemical Engineering Science, 2016, 151, 116-129.	3.8	5
395	Interactions between oxygen carriers used for chemical looping combustion and ash from brown coals. Fuel Processing Technology, 2016, 147, 71-82.	7.2	24
396	CO ₂ conversion to CO by auto-thermal catalyst-assisted chemical looping. Journal of CO ₂ Utilization, 2016, 16, 8-16.	6.8	60
397	Cycle performance of Cu-based oxygen carrier based on a chemical-looping combustion process. Journal of Energy Chemistry, 2016, 25, 101-109.	12.9	16
398	Investigation of sintered iron ore fines as an oxygen carrier in chemical looping combustion. Journal of Thermal Analysis and Calorimetry, 2016, 125, 459-469.	3.6	4
399	Fuel reactor modelling for chemical looping combustion: From micro-scale to macro-scale. Fuel, 2016, 175, 87-98.	6.4	27
400	Novel perovskite ceramics for chemical looping combustion application. Journal of CO ₂ Utilization, 2016, 13, 95-104.	6.8	25
401	Present status and overview of Chemical Looping Combustion technology. Renewable and Sustainable Energy Reviews, 2016, 59, 597-619.	16.4	210
402	An Eulerian Approach to Computational Fluid Dynamics Simulation of a Chemical-Looping Combustion Reactor With Chemical Reactions. Journal of Energy Resources Technology, Transactions of the ASME, 2016, 138, .	2.3	18
403	Novel model for non catalytic solid-gas reactions with structural changes by chemical reaction and sintering. Chemical Engineering Science, 2016, 142, 258-268.	3.8	24
404	Hydrogen production via chemical looping steam methane reforming process: Effect of cerium and calcium promoters on the performance of Fe ₂ O ₃ /Al ₂ O ₃ oxygen carrier. Applied Energy, 2016, 165, 685-694.	10.1	123

#	ARTICLE	IF	CITATIONS
405	Empirical formula for the mass flux in chemical absorption of CO ₂ with ammonia droplets. Applied Energy, 2016, 164, 1-9.	10.1	9
406	Density functional study on redox energetics of LaMO ₃ (M=Sc, Cu) perovskite-type oxides. Journal of Solid State Chemistry, 2016, 233, 62-66.	2.9	2
407	Characterization of an ilmenite ore for pressurized chemical looping combustion. Applied Energy, 2016, 163, 323-333.	10.1	51
408	Simulation of hydrogen production through chemical looping reforming process in a packed-bed reactor. Chemical Engineering Research and Design, 2016, 105, 137-151.	5.6	35
409	CO ₂ conversion in a dielectric barrier discharge plasma: N ₂ in the mix as a helping hand or problematic impurity?. Energy and Environmental Science, 2016, 9, 999-1011.	30.8	154
410	Activity study of NiO-based oxygen carriers in chemical looping steam methane reforming. Catalysis Today, 2016, 272, 32-41.	4.4	68
411	First-Principles Analysis of Cation Diffusion in Mixed Metal Ferrite Spinel. Chemistry of Materials, 2016, 28, 214-226.	6.7	80
412	Separation of N ₂ /CO ₂ mixture using a continuous high-pressure density-driven separator. Journal of CO ₂ Utilization, 2016, 14, 67-75.	6.8	5
413	Chemical Looping Co-combustion of Sewage Sludge and Zhundong Coal with Natural Hematite as the Oxygen Carrier. Energy & Fuels, 2016, 30, 1720-1729.	5.1	38
414	Lanthana-doped ceria as active support for oxygen carriers in chemical looping combustion. Applied Energy, 2016, 168, 236-247.	10.1	49
415	Evaluation of Cu-based oxygen carrier for chemical looping air separation in a fixed-bed reactor. Chemical Engineering Journal, 2016, 287, 292-301.	12.7	55
416	Hydrogen production with CO ₂ capture. International Journal of Hydrogen Energy, 2016, 41, 4969-4992.	7.1	343
417	Performance Model for Evaluating Chemical Looping Combustion (CLC) Processes for CO ₂ Capture at Gas-Fired Power Plants. Energy & Fuels, 2016, 30, 2257-2267.	5.1	10
418	High-Pressure Chemical-Looping of Methane and Synthesis Gas with Ni and Cu Oxygen Carriers. Energy & Fuels, 2016, 30, 504-514.	5.1	31
419	Bulk monolithic Ce-Zr-Fe-O/Al ₂ O ₃ oxygen carriers for a fixed bed scheme of the chemical looping combustion: Reactivity of oxygen carrier. Applied Energy, 2016, 163, 19-31.	10.1	47
420	Development of CaMn _{0.775} Mg _{0.1} Ti _{0.125} O _{3-δ} oxygen carriers produced from different Mn and Ti sources. Materials and Design, 2016, 89, 527-542.	7.0	26
421	Cold flow model of dual fluidized bed: A review. Renewable and Sustainable Energy Reviews, 2016, 53, 1529-1548.	16.4	36
422	Ferrites as redox catalysts for chemical looping processes. Fuel, 2016, 165, 367-378.	6.4	68

#	ARTICLE	IF	CITATIONS
423	Bioethanol combustion with CO ₂ capture in a 1kWth Chemical Looping Combustion prototype: Suitability of the oxygen carrier. Chemical Engineering Journal, 2016, 283, 1405-1413.	12.7	26
424	Thermal characterization of coal/straw combustion under air/oxy-fuel conditions in a swirl-stabilized furnace: A CFD modelling. Applied Thermal Engineering, 2016, 93, 639-651.	6.0	49
425	Combination of ionic liquids with membrane technology: A new approach for CO ₂ separation. Journal of Membrane Science, 2016, 497, 1-20.	8.2	439
426	CO ₂ capture from the calcination of CaCO ₃ using iron oxide as a heat carrier. Journal of Cleaner Production, 2016, 112, 1211-1217.	9.3	46
427	Physical mixtures as simple and efficient alternative to alloy carriers in chemical looping processes. AIChE Journal, 2017, 63, 51-59.	3.6	22
428	Performance of two iron-based syngas-fueled chemical looping systems for hydrogen and/or electricity generation combined with carbon capture. Clean Technologies and Environmental Policy, 2017, 19, 451-470.	4.1	13
429	Cold gas efficiency enhancement in a chemical looping combustion system using staged H ₂ separation approach. International Journal of Hydrogen Energy, 2017, 42, 4751-4763.	7.1	9
430	A facile method for sodium-modified Fe ₂ O ₃ /Al ₂ O ₃ oxygen carrier by an air atmospheric pressure plasma jet for chemical looping combustion process. Chemical Engineering Journal, 2017, 316, 15-23.	12.7	20
431	Energy and Exergy Analyses of a Power Plant With Carbon Dioxide Capture Using Multistage Chemical Looping Combustion. Journal of Energy Resources Technology, Transactions of the ASME, 2017, 139, .	2.3	15
432	Liquid sintering behavior of Cu-based oxygen carriers for chemical looping process. Catalysis Communications, 2017, 92, 70-74.	3.3	13
433	In Situ Synchrotron Powder Diffraction Studies of Reduction–Oxidation (Redox) Behavior of Iron Ores and Ilmenite. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2017, 48, 1400-1408.	2.1	1
434	Carbon Capture and Utilization Update. Energy Technology, 2017, 5, 834-849.	3.8	424
435	Thermodynamic potential of high temperature chemical looping combustion with molten iron oxide as the oxygen carrier. Chemical Engineering Research and Design, 2017, 120, 69-81.	5.6	24
436	Experimental investigations on unmixed combustion for heat transfer applications. Chemical Engineering Science, 2017, 164, 122-132.	3.8	9
437	Permselectivity Bench to Study Permeation Along Porous Tube. , 2017, , .		3
438	Experimental Analyses on Feasibility of Chemical Looping CoO/CoAl ₂ O ₄ with Additive for Solar Thermal Fuel Production. Energy Technology, 2017, 5, 1536-1545.	3.8	9
439	Screening the bulk properties and reducibility of Fe-doped Mn ₂ O ₃ from first principles calculations. Catalysis Today, 2017, 285, 104-113.	4.4	11
440	CO ₂ Capture with Chemical Looping Combustion of Gaseous Fuels: An Overview. Energy & Fuels, 2017, 31, 3475-3524.	5.1	91

#	ARTICLE	IF	CITATIONS
441	The search of proper oxygen carriers for chemical looping partial oxidation of carbon. Applied Energy, 2017, 190, 1119-1125.	10.1	64
442	Chemical equilibrium analysis of hydrogen production from shale gas using sorption enhanced chemical looping steam reforming. Fuel Processing Technology, 2017, 159, 128-144.	7.2	45
443	Particulate Formation from a Copper Oxide-Based Oxygen Carrier in Chemical Looping Combustion for CO ₂ Capture. Environmental Science & Technology, 2017, 51, 2482-2490.	10.0	26
444	Solvent-free, improved synthesis of pure bixbyite phase of iron and manganese mixed oxides as low-cost, potential oxygen carrier for chemical looping with oxygen uncoupling. Pure and Applied Chemistry, 2017, 89, 511-521.	1.9	9
445	Euler-Euler CFD simulation of the fuel reactor of a 1 MWth chemical-looping pilot plant: Influence of the drag models and specularly coefficient. Fuel, 2017, 200, 435-446.	6.4	28
446	Thermodynamic and ecological assessment of selected coal-fired power plants integrated with carbon dioxide capture. Applied Energy, 2017, 200, 73-88.	10.1	37
447	Energy-saving pathway exploration of CCS integrated with solar energy: A review of innovative concepts. Renewable and Sustainable Energy Reviews, 2017, 77, 652-669.	16.4	33
448	Enhanced Methane Dehydroaromatization via Coupling with Chemical Looping. ACS Catalysis, 2017, 7, 3924-3928.	11.2	33
449	Ni/CeO ₂ based catalysts as oxygen vectors for the chemical looping dry reforming of methane for syngas production. Applied Catalysis B: Environmental, 2017, 212, 159-174.	20.2	215
450	Gaseous state oxygen carrier for coal chemical looping process. Fuel, 2017, 202, 395-404.	6.4	12
451	Gas-solids kinetics of CuO/Al ₂ O ₃ as an oxygen carrier for high-pressure chemical looping processes: The influence of the total pressure. International Journal of Hydrogen Energy, 2017, 42, 12111-12121.	7.1	18
452	Thermodynamic screening of suitable oxygen carriers for a three reactor chemical looping reforming system. International Journal of Hydrogen Energy, 2017, 42, 15745-15760.	7.1	29
453	An Experimental Study on the Reduction Kinetics of Iron Titanium Based Oxygen Carriers with CO Validated by First Principle Calculations. ChemistrySelect, 2017, 2, 274-278.	1.5	1
454	Experience of more than 1000 h of operation with oxygen carriers and solid biomass at large scale. Applied Energy, 2017, 190, 1174-1183.	10.1	64
455	Co ₃ O ₄ nanoparticles as oxygen carriers for chemical looping combustion: A materials characterization approach to understanding oxygen carrier performance. Chemical Engineering Journal, 2017, 319, 279-287.	12.7	64
456	Effects of second metal oxides on zirconia-stabilized Ca-based sorbent for sorption/catalyst integrated gasification. Journal of Environmental Chemical Engineering, 2017, 5, 1281-1288.	6.7	19
457	The behaviour of multiple reaction fronts during iron (III) oxide reduction in a non-steady state packed bed for chemical looping water splitting. Applied Energy, 2017, 193, 96-111.	10.1	23
458	A cost-effective approach to reducing carbon deposition and resulting deactivation of oxygen carriers for improvement of energy efficiency and CO ₂ capture during methane chemical-looping combustion. Applied Energy, 2017, 193, 381-392.	10.1	20

#	ARTICLE	IF	CITATIONS
459	Synthesis and characterization of geopolymer oxygen carriers for chemical looping combustion. Applied Energy, 2017, 194, 136-147.	10.1	23
460	Hydrogen production in membrane microreactor using chemical looping combustion: A dynamic simulation study. International Journal of Hydrogen Energy, 2017, 42, 265-278.	7.1	12
461	Derivation of Kinetics and Design Parameters for a Carbonator Reactor in a Greenhouse Calcium Looping Process. Energy Technology, 2017, 5, 644-655.	3.8	1
462	Chemical looping combustion of biomass using metal ferrites as oxygen carriers. Chemical Engineering Journal, 2017, 312, 252-262.	12.7	56
463	Fluid flow analysis to describe the permeation process along the length of the porous tube. International Journal of Hydrogen Energy, 2017, 42, 25531-25543.	7.1	4
464	Combustion Performance of Sewage Sludge in a Novel CLC System with a Two-Stage Fuel Reactor. Energy & Fuels, 2017, 31, 12570-12581.	5.1	18
465	Recycling of spent Cu-based oxygen carriers into high-strength ceramic proppants. Ceramics International, 2017, 43, 16895-16902.	4.8	2
466	Chemical looping with oxygen uncoupling (CLOU) and chemical looping combustion (CLC) using copper-enriched oxygen carriers supported on fly ash. Fuel Processing Technology, 2017, 168, 123-130.	7.2	20
467	Effects of oxygen carrier mole fraction, velocity distribution on conversion performance using an experimentally validated mathematical model of a CLC fuel reactor. Applied Energy, 2017, 208, 803-819.	10.1	7
468	Efficiency Improvement of an Iron-based Syngas Fueled Chemical Looping Combustion Plant with Carbon Capture. Energy Procedia, 2017, 114, 309-316.	1.8	1
469	Adsorption and dissociation of O ₂ on MoO ₂ (1 $\bar{1}$,11) surfaces: a DFT study. Physical Chemistry Chemical Physics, 2017, 19, 29244-29254.	2.8	7
470	Isothermal Oxidation of Magnetite to Hematite in Air and Cyclic Reduction/Oxidation Under Carbon Looping Combustion Conditions. Metallurgical and Materials Transactions E, 2017, 4, 114-122.	0.5	3
471	A three-dimensional simulation of discrete combustion of randomly dispersed micron-aluminum particle dust cloud and applying genetic algorithm to obtain the flame front. Energy, 2017, 140, 804-817.	8.8	12
472	Determination of Carbonation/Calcination Reaction Kinetics of a Limestone Sorbent in low CO ₂ Partial Pressures Using TGA Experiments. Energy Procedia, 2017, 114, 259-270.	1.8	33
473	Chemical Looping Combustion in a Bed of Iron Loaded Geopolymers. Energy Procedia, 2017, 114, 387-394.	1.8	5
474	Chemical Looping for Pre-combustion and Post-combustion CO ₂ Capture. Energy Procedia, 2017, 114, 6403-6410.	1.8	19
475	Influence of Hubbard U Parameter in Simulating Adsorption and Reactivity on CuO: Combined Theoretical and Experimental Study. Journal of Physical Chemistry C, 2017, 121, 21343-21353.	3.1	35
476	Synthesis and study of metal-based oxygen carriers (Cu, Co, Fe, Ni) and their interaction with supported metal oxides (Al ₂ O ₃ , CeO ₂ , TiO ₂ , ZrO ₂) in a chemical looping combustion system. Energy, 2017, 138, 873-882.	8.8	56

#	ARTICLE	IF	CITATIONS
477	Gliding arc plasma for CO ₂ conversion: Better insights by a combined experimental and modelling approach. Chemical Engineering Journal, 2017, 330, 11-25.	12.7	97
478	On the mechanism controlling the redox kinetics of Cu-based oxygen carriers. Chemical Engineering Research and Design, 2017, 124, 193-201.	5.6	11
479	Efficient methane reforming at proper reaction environment for the highly active and stable fibrous perovskite catalyst. Fuel, 2017, 207, 493-502.	6.4	10
480	Utilization of Mendelevite iron ore as oxygen carrier in Chemical-Looping Combustion. Energy, 2017, 138, 785-798.	8.8	17
481	Manufacturing of Perovskite Oxygen Carriers by Spray Granulation for Chemical Looping Combustion. Energy Technology, 2017, 5, 2119-2127.	3.8	3
482	The synthesis of dandelion-like CuO nanoflowers and photocatalytic degradation of RhB. Colloid and Polymer Science, 2017, 295, 1797-1803.	2.1	5
483	Production of inherently separated syngas streams via chemical looping methane cracking. Catalysis Today, 2017, 298, 21-32.	4.4	19
484	Numerical assessment of the effects of carbon deposition and oxidation on chemical looping combustion in a packed-bed reactor. Chemical Engineering Science, 2017, 160, 85-95.	3.8	18
485	Process and engineering trends in membrane based carbon capture. Renewable and Sustainable Energy Reviews, 2017, 68, 659-684.	16.4	124
486	Research challenges in combustion and gasification arising from emerging technologies employing directly irradiated concentrating solar thermal radiation. Proceedings of the Combustion Institute, 2017, 36, 2055-2074.	3.9	34
487	Reduction and oxidation kinetic modeling of NiO-based oxygen transfer materials. Chemical Engineering Journal, 2017, 308, 840-852.	12.7	34
488	Characterization of flow regimes in fluidized beds by information entropy analysis of pressure fluctuations. Canadian Journal of Chemical Engineering, 2017, 95, 578-588.	1.7	7
489	Effect of Ternary Eutectic Salt on the Calcium Sulfate Oxygen Carrier for Chemical Looping Combustion of Coal Char. Energy Technology, 2017, 5, 469-480.	3.8	6
490	Elutriation of fines from binary particle mixtures in bubbling fluidized bed cold model. Powder Technology, 2017, 305, 340-346.	4.2	18
491	REVIEW OF RECENT ADVANCES IN PROCESS MODELING AND COMPUTATIONAL FLUID DYNAMICS SIMULATION OF CHEMICAL-LOOPING COMBUSTION. International Journal of Energy for A Clean Environment, 2017, 18, 1-37.	1.1	9
492	Industrial waste materials and naturally occurring minerals as inexpensive oxygen carriers for chemical looping combustion. International Journal of Global Warming, 2017, 13, 353.	0.5	1
493	Numerical Modeling of Oxygen Carrier Performances (NiO/NiAl ₂ O ₄) for Chemical-Looping Combustion. Energies, 2017, 10, 864.	3.1	5
494	The membrane-assisted chemical looping reforming concept for efficient H ₂ production with inherent CO ₂ capture: Experimental demonstration and model validation. Applied Energy, 2018, 215, 75-86.	10.1	49

#	ARTICLE	IF	CITATIONS
495	Synergy effects of combined red muds as oxygen carriers for chemical looping combustion of methane. Chemical Engineering Journal, 2018, 341, 588-600.	12.7	73
496	Investigation of the role of the Na ₂ WO ₄ /Mn/SiO ₂ catalyst composition in the oxidative coupling of methane by chemical looping experiments. Journal of Catalysis, 2018, 360, 102-117.	6.2	76
497	A three-dimensional hot flow model for simulating the alumina encapsulated Ni-NiO methane-air CLC system based on the computational fluid dynamics-discrete element method. Fuel, 2018, 224, 388-400.	6.4	12
498	Effect of the Addition of CeO ₂ or MgO on the Oxygen Carrier Capacity and Rate of Redox Reactions of NiO/Fe ₂ O ₃ /Al ₂ O ₃ Oxygen Carriers. ACS Omega, 2018, 3, 4378-4383.	3.5	4
499	Optimization of CO ₂ Biofixation by <i>Chlorella vulgaris</i> Using a Tubular Photobioreactor. Chemical Engineering and Technology, 2018, 41, 1313-1323.	1.5	22
500	Evaluation of Microstructural Changes and Performance Degradation in Iron-Based Oxygen Carriers during Redox Cycling for Chemical Looping Systems with Image Analysis. Industrial & Engineering Chemistry Research, 2018, 57, 5529-5538.	3.7	32
501	Chemical looping combustion using geopolymer-based oxygen carriers. Chemical Engineering Journal, 2018, 341, 187-197.	12.7	11
502	Modeling of unmixed combustion based packed bed reactor system for heat transfer applications. Chemical Engineering Science, 2018, 178, 367-376.	3.8	7
503	Performance of fuel reactor in a chemical looping combustion system with different oxygen carriers. Thermal Science and Engineering Progress, 2018, 5, 303-308.	2.7	7
504	Dynamic simulation of fluidized bed chemical looping combustion process with iron based oxygen carrier. Fuel, 2018, 214, 436-445.	6.4	21
505	Chemical Looping and Plasma Technologies for Gasification of Coal and Biomass. Energy, Environment, and Sustainability, 2018, , 499-520.	1.0	1
506	Evolution of CO ₂ capture technology between 2007 and 2017 through the study of patent activity. Applied Energy, 2018, 211, 1282-1296.	10.1	95
507	Tech-economic assessment of second-generation CCS: Chemical looping combustion. Energy, 2018, 144, 915-927.	8.8	65
508	Syngas production on a Ni-enhanced Fe ₂ O ₃ /Al ₂ O ₃ oxygen carrier via chemical looping partial oxidation with dry reforming of methane. Applied Energy, 2018, 211, 174-186.	10.1	126
509	Chemical looping combustion of solid fuels. Progress in Energy and Combustion Science, 2018, 65, 6-66.	31.2	433
510	Oxidation and reduction kinetic of YBaCo ₄ O _{7+δ} and substituted oxygen carriers. Journal of Thermal Analysis and Calorimetry, 2018, 134, 2213-2221.	3.6	6
511	Effect of solid residence time on CO ₂ selectivity in a semi-continuous chemical looping combustor. Korean Journal of Chemical Engineering, 2018, 35, 1257-1262.	2.7	9
512	Mature versus emerging technologies for CO ₂ capture in power plants: Key open issues in post-combustion amine scrubbing and in chemical looping combustion. Frontiers of Chemical Science and Engineering, 2018, 12, 315-325.	4.4	39

#	ARTICLE	IF	CITATIONS
513	Kinetics of perovskite-like oxygen carriers for chemical looping air separation. Korean Journal of Chemical Engineering, 2018, 35, 626-636.	2.7	5
514	Study of C/Doped $\text{Bi}_{2-x}\text{O}_{3-x}$ Redox Reactions by in Operando Synchrotron X-ray Diffraction: Bond Energy/Oxygen Vacancy and Reaction Kinetics Relationships. Journal of Physical Chemistry C, 2018, 122, 8796-8803.	3.1	12
515	CO2 Sequestration: Processes and Methodologies. , 2018, , 1-50.		1
516	Development and validation of an enhanced filtered drag model for simulating gas-solid fluidization of Geldart A particles in all flow regimes. Chemical Engineering Science, 2018, 184, 33-51.	3.8	133
517	Enhancing natural gas-to-liquids (GTL) processes through chemical looping for syngas production: Process synthesis and global optimization. Computers and Chemical Engineering, 2018, 113, 222-239.	3.8	17
518	Processing and characterization of Fe-based oxygen carriers for chemical looping for hydrogen production. International Journal of Greenhouse Gas Control, 2018, 70, 12-21.	4.6	25
519	A thermogravimetric study of CoTiO_3 as oxygen carrier for chemical looping combustion. Catalysis Today, 2018, 303, 13-18.	4.4	22
521	Alternative pathways for efficient CO2 capture by hybrid processesâ€”A review. Renewable and Sustainable Energy Reviews, 2018, 82, 215-231.	16.4	236
522	O2 uncoupling behaviour of ilmenite and manganese-modified ilmenite as oxygen carriers. Fuel Processing Technology, 2018, 169, 15-23.	7.2	17
523	Solar thermal hybrids for combustion power plant: A growing opportunity. Progress in Energy and Combustion Science, 2018, 64, 4-28.	31.2	110
524	Comparison of pyrite cinder with synthetic and natural ironâ€”based oxygen carriers in coalâ€”fueled chemicalâ€”looping combustion. , 2018, 8, 106-119.		16
525	Kinetics of CuO/SiO_2 and $\text{CuO}/\text{Al}_2\text{O}_3$ oxygen carriers for chemical looping combustion. Chemical Engineering Science, 2018, 175, 56-71.	3.8	37
526	Chemical looping as a reactor concept for the oxidative coupling of methane over the $\text{Mn}_x\text{O}_y\text{-Na}_2\text{WO}_4/\text{SiO}_2$ catalyst, benefits and limitation. Catalysis Today, 2018, 311, 40-47.	4.4	39
527	Power Generation from Coke Oven Gas Using Chemical Looping Combustion: Thermodynamic Simulation. Chemical Engineering and Technology, 2018, 41, 524-531.	1.5	1
528	Importance of spinel reaction kinetics in packed-bed chemical looping combustion using a $\text{CuO}/\text{Al}_2\text{O}_3$ oxygen carrier. Chemical Engineering Journal, 2018, 334, 1905-1916.	12.7	9
529	Redox performance of Na-modified $\text{Fe}_2\text{O}_3/\text{Al}_2\text{O}_3$ with syngas as reducing agent in chemical looping combustion process. Chemical Engineering Journal, 2018, 334, 2079-2087.	12.7	40
530	Flame propagation through heterogeneous combustion of hybrid aluminum-boron poly-disperse particle suspensions in air. Fuel, 2018, 215, 714-725.	6.4	9
531	Gasification of various biomasses including microalgae using CO_2 â€” A thermodynamic study. Renewable Energy, 2018, 119, 598-607.	8.9	23

#	ARTICLE	IF	CITATIONS
532	Superiority of Re-circulating Fluidized Bed Reactor Over Existing Reactor Arrangements for Chemical Looping Combustion—A Review. Water Science and Technology Library, 2018, , 77-87.	0.3	1
533	Electric arc furnace dust as an alternative low-cost oxygen carrier for chemical looping combustion. Journal of Hazardous Materials, 2018, 342, 297-305.	12.4	20
534	Solid-State Kinetics of Reduction of NiO/Ce γ Al_2O_3 Oxygen Carriers for Chemical-Looping Combustion. Arabian Journal for Science and Engineering, 2018, 43, 2281-2290.	3.0	4
535	Chemical looping combustion of biomass for renewable & non- CO ₂ emissions energy- status and review. International Journal of Engineering and Technology(UAE), 2018, 7, 6.	0.3	0
536	Evaluating Algae as an Alternative Fuel for Chemical Looping Combustion. PAM Review Energy Science & Technology, 2018, 5, 37-55.	0.2	0
537	Characterization of Fe ₂ O ₃ /Mn ₂ O ₃ Oxygen Carrier for Chemical Looping Combustion Prepared by Dry Impregnation Method. International Journal of Engineering and Technology(UAE), 2018, 7, 674.	0.3	3
538	Dynamic Optimization and Control of Chemical Looping Combustion Combined Cycle Power Plants. IFAC-PapersOnLine, 2018, 51, 845-850.	0.9	0
540	Reactivity of a Chinese lean iron ore as oxygen carrier: Kinetics and characterization. Thermochimica Acta, 2018, 670, 114-122.	2.7	14
541	Fe ₂ O ₃ –Al ₂ O ₃ oxygen carrier materials for chemical looping combustion, a redox thermodynamic and thermogravimetric evaluation in the presence of H ₂ S. Journal of Thermal Analysis and Calorimetry, 2018, 134, 1739-1748.	3.6	8
544	Effect of baffle on hydrodynamics in the air reactor of dual circulating fluidized bed for chemical looping process. Powder Technology, 2018, 340, 88-98.	4.2	9
545	Factors Controlling Oxygen Interstitial Diffusion in the Ruddlesden–Popper Oxide $\text{La}_{2-x}\text{Sr}_x\text{NiO}_{4+\delta}$. Chemistry of Materials, 2018, 30, 7166-7177.	6.7	28
546	Atomic Layer Deposition of a Film of Al_2O_3 on Electrodeposited Copper Foams To Yield Highly Effective Oxygen Carriers for Chemical Looping Combustion-Based CO ₂ Capture. ACS Applied Materials & Interfaces, 2018, 10, 37994-38005.	8.0	7
547	Reprint of: Enhancing natural gas-to-liquids (GTL) processes through chemical looping for syngas production: Process synthesis and global optimization. Computers and Chemical Engineering, 2018, 116, 521-538.	3.8	3
548	Hydrogen Production by Steam Oxidation of Reduced CaFe_2O_4 during Chemical Looping Coal Gasification: Equilibrium and Kinetic Analysis. Energy & Fuels, 2018, 32, 10398-10407.	5.1	11
549	Techno-Economic Analysis of a Carbon Capture Chemical Looping Combustion Power Plant. Journal of Energy Resources Technology, Transactions of the ASME, 2018, 140, .	2.3	15
550	Effect of Lime Addition to CaSO ₄ Oxygen Carrier in Chemical Looping Combustion. Brazilian Journal of Chemical Engineering, 2018, 35, 155-168.	1.3	3
551	A cost-effective approach to realization of the efficient methane chemical-looping combustion by using coal fly ash as a support for oxygen carrier. Applied Energy, 2018, 230, 393-402.	10.1	16
552	Synergistic Application of XPS and DFT to Investigate Metal Oxide Surface Catalysis. Journal of Physical Chemistry C, 2018, 122, 22397-22406.	3.1	104

#	ARTICLE	IF	CITATIONS
553	Defect control for large-scale thin-film composite membrane and its bench-scale demonstration. <i>Journal of Membrane Science</i> , 2018, 566, 374-382.	8.2	14
554	Oxygen Uncoupling of Cu-Based Oxygen Carrier with the Presence of Coal Ash in Chemical Looping Process. <i>Energy & Fuels</i> , 2018, 32, 7708-7717.	5.1	16
555	Copper–alumina nanocomposites derived from CuAlO_2 : Phase transformation and microstructural coarsening. <i>Journal of the American Ceramic Society</i> , 2018, 101, 5801-5810.	3.8	6
556	Reduction kinetics of undoped and aluminum titanate (Al_2TiO_5) doped NiO -YSZ solid oxide fuel cell anodes. <i>Ceramics International</i> , 2018, 44, 15557-15564.	4.8	5
557	Na_2CO_3 -doped CaO -based high-temperature CO_2 sorbent and its sorption kinetics. <i>Chemical Engineering Journal</i> , 2018, 352, 103-109.	12.7	51
558	Characterization of combined Fe-Cu oxides as oxygen carrier in chemical looping gasification of biomass. <i>International Journal of Greenhouse Gas Control</i> , 2018, 75, 63-73.	4.6	45
559	Determination of redox pathways of supported bimetallic oxygen carriers in a methane fuelled chemical looping combustion system. <i>Fuel</i> , 2018, 233, 133-145.	6.4	18
560	Mn-based oxygen carriers prepared by impregnation for Chemical Looping Combustion with diverse fuels. <i>Fuel Processing Technology</i> , 2018, 178, 236-250.	7.2	44
561	Recent progress in ionic liquid membranes for gas separation. <i>Journal of Molecular Liquids</i> , 2018, 266, 330-341.	4.9	146
562	Oxidation of carbon by gaseous metal oxide: A multi-path mechanism study. <i>Carbon</i> , 2018, 139, 258-270.	10.3	0
563	CO_2 "Capture and Storage". , 2018, , 61-130.		3
564	Integrated liquid fuel based chemical looping combustion " parametric study for efficient power generation and CO_2 capture. <i>Applied Energy</i> , 2018, 228, 2398-2406.	10.1	12
565	Techno-economic analysis of a poly-generation solar-assisted chemical looping combustion power plant. <i>Applied Energy</i> , 2018, 228, 724-735.	10.1	14
566	Reaction decoupling in thermochemical fuel conversion and technical progress based on decoupling using fluidized bed. <i>Carbon Resources Conversion</i> , 2018, 1, 109-125.	5.9	34
567	Reactive two-fluid model for chemical-looping combustion " Simulation of fuel and air reactors. <i>International Journal of Greenhouse Gas Control</i> , 2018, 76, 175-192.	4.6	24
568	Oxidation kinetics of $\text{YBaCo}_4\text{O}_{7+\delta}$ and substituted oxygen carriers. <i>Royal Society Open Science</i> , 2018, 5, 180150.	2.4	2
569	Systems analysis of pressurized chemical looping combustion for SAGD applications. <i>International Journal of Greenhouse Gas Control</i> , 2018, 73, 111-123.	4.6	23
570	Fe_2O_3 Nanoparticles as Oxygen Carriers for Chemical Looping Combustion: An Integrated Materials Characterization Approach to Understanding Oxygen Carrier Performance, Reduction Mechanism, and Particle Size Effects. <i>Energy & Fuels</i> , 2018, 32, 7959-7970.	5.1	33

#	ARTICLE	IF	CITATIONS
571	Performance and Kinetic Evaluation of Synthesized CuO/SBA-15 Oxygen Carrier for Chemical Looping with Oxygen Uncoupling. Energy Technology, 2019, 7, 1900407.	3.8	9
572	Ignition Threshold of Perovskite-Based Oxides for Solid Fuel Oxidation from First-Principles Calculations. Journal of Physical Chemistry C, 2019, 123, 17644-17649.	3.1	2
573	Steel converter slag as an oxygen carrier in a 12 MWth CFB boiler – Ash interaction and material evolution. International Journal of Greenhouse Gas Control, 2019, 88, 321-331.	4.6	50
574	Chemical looping technology in CHP (combined heat and power) and CCHP (combined cooling heating) Tj ETQq1 1 0.784314rgBT /Ove	10.1	55
575	Sustainable iron-based oxygen carriers for hydrogen production – Real-time operando investigation. International Journal of Greenhouse Gas Control, 2019, 88, 393-402.	4.6	7
576	11,000h of chemical-looping combustion operation – Where are we and where do we want to go?. International Journal of Greenhouse Gas Control, 2019, 88, 38-56.	4.6	148
577	Evaluation of calcined copper slag as an oxygen carrier for chemical looping gasification of sewage sludge. International Journal of Hydrogen Energy, 2019, 44, 17823-17834.	7.1	40
578	Density Functional Theory Study on the Reaction Mechanism of Spinel $\text{CoFe}_{2-x}\text{O}_4$ with CO during Chemical-Looping Combustion. Journal of Physical Chemistry C, 2019, 123, 17335-17342.	3.1	27
579	A density functional theory analysis on syngas adsorption on NiO (100) surface. Applied Surface Science, 2019, 498, 143782.	6.1	16
580	Spinel oxides as coke-resistant supports for NiO-based oxygen carriers in chemical looping combustion of methane. Catalysis Today, 2023, 424, 112462.	4.4	9
581	Reduction of CO ₂ emission for solar power backup by direct integration of oxy-combustion supercritical CO ₂ power cycle with concentrated solar power. Energy Conversion and Management, 2019, 201, 112161.	9.2	17
582	Effect of Preparation Method on the Structural Characteristics of NiO-ZrO ₂ Oxygen Carriers for Chemical-looping Combustion. Chemical Research in Chinese Universities, 2019, 35, 1024-1031.	2.6	5
583	Transition-Metal-Free Acceptorless Decarbonylation of Formic Acid Enabled by a Liquid Chemical-Looping Strategy. Angewandte Chemie, 2019, 131, 17375-17379.	2.0	5
584	Process simulation and thermodynamic analysis of a chemical looping combustion system using methane as fuel and NiO as the oxygen carrier in a moving-bed reactor. Chemical Engineering and Processing: Process Intensification, 2019, 144, 107636.	3.6	15
585	Transition-Metal-Free Acceptorless Decarbonylation of Formic Acid Enabled by a Liquid Chemical-Looping Strategy. Angewandte Chemie - International Edition, 2019, 58, 17215-17219.	13.8	9
586	Efficiency Improvement of Chemical Looping Combustion Combined Cycle Power Plants. Energy Technology, 2019, 7, 1900567.	3.8	16
587	Effect of Coal Ash on Fe-Based Oxygen Carrier in Coal Char Chemical Looping Gasification. International Journal of Chemical Reactor Engineering, 2019, 17, .	1.1	5
588	Dynamic Optimization Applied for Modelling and Optimal Control of a Packed Bed Reactor for Chemical-Looping Combustion. IFAC-PapersOnLine, 2019, 52, 850-855.	0.9	3

#	ARTICLE	IF	CITATIONS
589	Axial Distribution of Permeance and Selectivity of a Porous Cylindrical Tube for Binary Gas Mixtures (CO ₂ /N ₂). Industrial & Engineering Chemistry Research, 2019, 58, 3359-3369.	3.7	1
590	Redox kinetics of nickel oxide foils: Structural evolution and rate-limiting steps. Combustion and Flame, 2019, 207, 71-88.	5.2	7
591	Examining and Modeling Oxygen Uncoupling Kinetics of Cu-Based Oxygen Carriers for Chemical Looping with Oxygen Uncoupling (CLOU) in a Drop Tube Fluidized Bed Reactor. Energy & Fuels, 2019, 33, 5610-5619.	5.1	19
592	Utilization of Alumina Aerogel as High Surface Area Support for the Fabrication of Oxygen Carriers in the Chemical Looping Combustion Process. Energy & Fuels, 2019, 33, 5408-5414.	5.1	8
593	On the use of an in situ magnetometer to study redox and sintering properties of NiO based oxygen carrier materials for chemical looping steam methane reforming. International Journal of Hydrogen Energy, 2019, 44, 18093-18102.	7.1	13
594	Techno-economic assessment of a chemical looping reforming combined cycle plant with iron and tungsten based oxygen carriers. International Journal of Hydrogen Energy, 2019, 44, 11525-11534.	7.1	23
595	Application of Protic Ionic Liquids to CO ₂ Separation in a Sulfonated Polyimide-Derived Ion Gel Membrane. ACS Applied Polymer Materials, 2019, 1, 1579-1589.	4.4	25
596	Simulation of two-step redox recycling of non-stoichiometric ceria with thermochemical dissociation of CO ₂ /H ₂ O in moving bed reactors – Part II: Techno-economic analysis and integration with 100 MW oxyfuel power plant with carbon capture. Chemical Engineering Science, 2019, 205, 358-373.	3.8	11
597	Automated learning of chemical reaction networks. Computers and Chemical Engineering, 2019, 127, 88-98.	3.8	13
598	Study on the redox characteristics of CaCo based oxygen carrier for Chemical Looping Combustion. Chemical Engineering Journal, 2019, 377, 121522.	12.7	11
599	Synthesis of Telmisartan Organotin(IV) Complexes and their use as Carbon Dioxide Capture Media. Molecules, 2019, 24, 1631.	3.8	26
600	Ilmenite oxidation kinetics for pressurized chemical looping combustion of natural gas. Applied Energy, 2019, 238, 747-759.	10.1	24
601	Degradation analysis of mixed ionic-electronic conductor-supported iron-oxide oxygen carriers for chemical-looping conversion of methane. Applied Energy, 2019, 239, 644-657.	10.1	20
602	110th Anniversary: Kinetic Model for Syngas Chemical Looping Combustion Using a Nickel-Based Highly Performing Fluidizable Oxygen Carrier. Industrial & Engineering Chemistry Research, 2019, 58, 2801-2811.	3.7	16
603	Methane Dissociation on \pm -Fe ₂ O ₃ (0001) and Fe ₃ O ₄ (111) Surfaces: First-Principles Insights into Chemical Looping Combustion. Journal of Physical Chemistry C, 2019, 123, 6450-6463.	3.1	23
604	Modelling of three-reactor system for chemical looping hydrogen generation: identifying a suitable operating range. E3S Web of Conferences, 2019, 118, 02035.	0.5	0
605	A Critical Review of CO ₂ Capture Technologies and Prospects for Clean Power Generation. Energies, 2019, 12, 4143.	3.1	116
606	Chemical looping hydrogen production with modified iron ore as oxygen carriers using biomass pyrolysis gas as fuel. RSC Advances, 2019, 9, 39064-39075.	3.6	17

#	ARTICLE	IF	CITATIONS
607	CO2 Sequestration: Processes and Methodologies. , 2019, , 1-50.		0
608	Optimal design of combined cycle power plants with fixed-bed chemical-looping combustion reactors. AICHE Journal, 2019, 65, e16516.	3.6	6
609	Iron-based oxygen carriers in chemical looping conversions: A review. Carbon Resources Conversion, 2019, 2, 23-34.	5.9	137
610	Sequential Oxygen Reduction and Adsorption for Carbon Dioxide Purification for Flue Gas Applications. Energy Technology, 2019, 7, 1800917.	3.8	8
611	Optimization of Chemical Looping Pyrolysis System of Coal Tar by Combined Simulation and Experiments. Energy & Fuels, 2019, 33, 595-602.	5.1	7
612	Phase interactions in Ni-Cu-Al ₂ O ₃ mixed oxide oxygen carriers for chemical looping applications. Applied Energy, 2019, 236, 635-647.	10.1	33
613	Oxygen transport capacity and kinetic study of ilmenite ores for methane chemical-looping combustion. Energy, 2019, 169, 329-337.	8.8	27
614	Sustainable iron-based oxygen carriers for Chemical Looping for Hydrogen Generation. International Journal of Hydrogen Energy, 2019, 44, 1374-1391.	7.1	47
615	Kinetics of the reduction and oxidation of Mg added NiO/Al ₂ O ₃ for chemical looping combustion. Chemical Engineering Research and Design, 2019, 141, 481-491.	5.6	11
616	Exploring the stability of Fe ₂ O ₃ -MgAl ₂ O ₄ oxygen storage materials for CO production from CO ₂ . Journal of CO ₂ Utilization, 2019, 29, 36-45.	6.8	25
617	Chemical-looping combustion: Status and research needs. Proceedings of the Combustion Institute, 2019, 37, 4303-4317.	3.9	141
618	Syngas chemical looping combustion using a highly performing fluidizable oxygen carrier. Catalysis Today, 2020, 343, 63-71.	4.4	12
619	Flow past a single stationary sphere, 2. Regime mapping and effect of external disturbances. Powder Technology, 2020, 365, 215-243.	4.2	34
620	A framework for the optimization of chemical looping combustion processes. Powder Technology, 2020, 365, 149-162.	4.2	12
621	A forcing fictitious domain method to simulate fluid-particle interaction of particles with super-quadric shape. Powder Technology, 2020, 360, 264-277.	4.2	17
622	Mapping the operating performance of a novel internally circulating fluidized bed reactor applied to chemical looping combustion. Fuel Processing Technology, 2020, 197, 106183.	7.2	15
623	Renewable Energy and Climate Change. Smart Innovation, Systems and Technologies, 2020, , .	0.6	13
624	Chemical-looping Conversion of Methane: A Review. Energy Technology, 2020, 8, 1900925.	3.8	87

#	ARTICLE	IF	CITATIONS
625	Thermodynamic feasibility for molybdenum-based gaseous oxides assisted looping coal gasification and its derived power plant. <i>Energy</i> , 2020, 194, 116830.	8.8	5
626	Dynamic modelling and optimal control strategies for chemical-looping combustion in an industrial-scale packed bed reactor. <i>Fuel</i> , 2020, 262, 116544.	6.4	15
627	Development of tailor-made oxygen carriers and reactors for chemical looping processes at Huazhong University of Science & Technology. <i>International Journal of Greenhouse Gas Control</i> , 2020, 93, 102898.	4.6	73
628	Effect of Char Loading on Reduction Kinetics of Cu-Based Oxygen Carriers in a Drop-Tube Fluidized-Bed Reactor at Temperatures from 850 to 1100 °C: Experiment and CFD Modeling. <i>Energy & Fuels</i> , 2020, 34, 728-741.	5.1	2
629	Ni-Fe bimetallic oxides on La modified Al ₂ O ₃ as an oxygen carrier for liquid fuel based chemical looping combustion. <i>Fuel</i> , 2020, 263, 116670.	6.4	13
630	In operando tomography reveals degradation mechanisms in lamellar iron foams during redox cycling at 800 °C. <i>Journal of Power Sources</i> , 2020, 448, 227463.	7.8	21
631	A comparative study on clean ammonia production using chemical looping based technology. <i>Applied Energy</i> , 2020, 280, 115874.	10.1	37
632	A two carriers reactor configuration for chemical-looping combustion in a packed-bed. <i>International Journal of Greenhouse Gas Control</i> , 2020, 99, 103099.	4.6	3
633	CO ₂ Capture from Biomass Gasification Producer Gas Using a Novel Calcium and Iron-Based Sorbent through Carbonation–Calcination Looping. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 18447-18459.	3.7	10
634	Reduction mechanism study on sorption enhanced chemical looping gasification of biomass waste rice husk for H ₂ production over multi-functional Ni–Ca–O particles. <i>Fuel Processing Technology</i> , 2020, 209, 106524.	7.2	10
635	Understanding and Improving the Kinetics of Bulk Carbonation on Sodium Carbonate. <i>Journal of Physical Chemistry C</i> , 2020, 124, 23106-23115.	3.1	5
636	Enhanced performance of copper ore oxygen carrier by red mud modification for chemical looping combustion. <i>Applied Energy</i> , 2020, 277, 115590.	10.1	39
637	Numerical and experimental analysis for simulating fuel reactor in chemical looping combustor system. <i>International Journal of Coal Science and Technology</i> , 2020, 7, 551-559.	6.0	11
638	Development of Chemical Looping Combustion Power Systems at the Chinese Academy of Sciences. <i>Energy & Fuels</i> , 2020, 34, 11791-11812.	5.1	8
639	Development of Stable Oxygen Carrier Materials for Chemical Looping Processes—A Review. <i>Catalysts</i> , 2020, 10, 926.	3.5	58
640	Zeolite–Perovskite Composites as Effective Redox Catalysts for Autothermal Cracking of <i>n</i> -Hexane. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 14268-14273.	6.7	13
641	Fe–Ni foams self-heal during redox cycling <i>via</i> reversible formation/homogenization of a ductile Ni scaffold. <i>Journal of Materials Chemistry A</i> , 2020, 8, 19375-19386.	10.3	13
642	Insights into Syngas Combustion on a Defective NiO Surface for Chemical Looping Combustion: Oxygen Migration and Vacancy Effects. <i>Journal of Physical Chemistry C</i> , 2020, 124, 28359-28370.	3.1	17

#	ARTICLE	IF	CITATIONS
643	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.	2.3	1
645	Development of a Reactive Force Field for Simulations on the Catalytic Conversion of C/H/O Molecules on Cu-Metal and Cu-Oxide Surfaces and Application to Cu/CuO-Based Chemical Looping. <i>Journal of Physical Chemistry C</i> , 2020, 124, 12512-12520.	3.1	25
646	Hierarchical Structural Changes During Redox Cycling of Fe-Based Lamellar Foams Containing YSZ, CeO ₂ , or ZrO ₂ . <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 27190-27201.	8.0	10
647	Chemical Looping Combustion over a Lanthanum Nickel Perovskite-Type Oxygen Carrier with Facilitated O ² Transport. <i>Energy & Fuels</i> , 2020, 34, 8732-8739.	5.1	11
648	Mn-Fe-Al-O mixed spinel oxides as oxygen carrier for chemical looping hydrogen production with CO ₂ capture. <i>Fuel</i> , 2020, 274, 117854.	6.4	27
650	Facile CO ₂ separation and subsequent H ₂ production <i>via</i> chemical-looping combustion over ceria-zirconia solid solutions. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 8545-8556.	2.8	3
651	Chemical Looping Combustion: Status and Development Challenges. <i>Energy & Fuels</i> , 2020, 34, 9077-9093.	5.1	148
652	CO ₂ capturing, thermo-kinetic principles, synthesis and amine functionalization of covalent organic polymers for CO ₂ separation from natural gas: A review. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 77, 103203.	4.4	68
653	Performance Evaluation of a Cu-Based Oxygen Carrier Impregnated onto ZrO ₂ for Chemical-Looping Combustion (CLC). <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 7255-7266.	3.7	27
654	A density functional theory study on reduction-induced structural transformation of copper-oxide-based oxygen carrier. <i>Journal of Chemical Physics</i> , 2020, 152, 054709.	3.0	8
655	Chemical looping beyond combustion – a perspective. <i>Energy and Environmental Science</i> , 2020, 13, 772-804.	30.8	325
656	Integrated diesel fueled chemical looping combustion for power generation and CO ₂ capture – Performance evaluation based on exergy analysis. <i>Energy Conversion and Management</i> , 2020, 206, 112430.	9.2	14
657	CO ₂ Capture Using Chemical Looping Combustion from a Biomass-Derived Syngas Feedstock: Simulation of a Riser-Downer Scaled-Up Unit. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 6900-6913.	3.7	14
658	Preparation of Novel Oxygen Carriers Supported by Ti, Zr-Shelled γ -Alumina for Chemical Looping Combustion of Methane. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 3221-3228.	3.7	20
659	Oxygen Uncoupling Property and Kinetics of a Copper Manganese Composite Oxygen Carrier in a Packed-Bed Reactor. <i>Energy & Fuels</i> , 2020, 34, 6158-6167.	5.1	7
660	Phase stability and thermodynamic properties of PrBaMn ₂ O ₆ . <i>Journal of Solid State Chemistry</i> , 2020, 287, 121382.	2.9	8
661	Chemical looping combustion with nanosize oxygen carrier: a review. <i>International Journal of Environmental Science and Technology</i> , 2021, 18, 787-798.	3.5	13
662	Mechanistic study of the CO oxidation reaction on the CuO (111) surface during chemical looping combustion. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 5289-5297.	3.9	18

#	ARTICLE	IF	CITATIONS
663	Commissioning, performance benchmarking, and investigation of alkali emissions in a 10ÂkWth solid fuel chemical looping combustion pilot. <i>Fuel</i> , 2021, 287, 119530.	6.4	51
664	Coupling of a novel boron-based thermochemical cycle with chemical looping combustion to produce ammonia and power. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 28949-28960.	7.1	3
665	Recent Advances of Oxygen Carriers for Chemical Looping Reforming of Methane. <i>ChemCatChem</i> , 2021, 13, 1615-1637.	3.7	32
666	Chemical looping gasification of sewage sludge using copper slag modified by NiO as an oxygen carrier. <i>Chinese Journal of Chemical Engineering</i> , 2021, 29, 335-343.	3.5	15
667	Release and fate of pyritic sulfur in chemical looping combustion. <i>Fuel</i> , 2021, 285, 119213.	6.4	14
668	Percolation theory applied in modelling of Fe ₂ O ₃ reduction during chemical looping combustion. <i>Chemical Engineering Journal</i> , 2021, 406, 126845.	12.7	8
669	Biomass Co-Firing With Carbon Capture. , 2022, , 330-347.		3
670	Harnessing electrochemical pH gradient for direct air capture with hydrogen and oxygen by-products in a calcium-based loop. <i>Sustainable Energy and Fuels</i> , 2021, 5, 4355-4367.	4.9	11
671	Effects of support and oxygen vacancies on the energetics of NiO reduction with H ₂ for the chemical looping combustion (CLC) reaction; a DFT study. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 12795-12806.	2.8	7
672	Linking Solid-State Reduction Mechanisms to Size-Dependent Reactivity of Metal Oxide Oxygen Carriers for Chemical Looping Combustion. <i>ACS Applied Energy Materials</i> , 2021, 4, 1163-1172.	5.1	14
673	A tailored multi-functional catalyst for ultra-efficient styrene production under a cyclic redox scheme. <i>Nature Communications</i> , 2021, 12, 1329.	12.8	35
674	Dynamic Oxygen Storage Capacity of Ceria-Zirconia and Mn _{0.5} Fe _{2.5} O ₄ Spinel: Experiments and Modeling. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 6465-6482.	3.7	6
675	Experimental Evaluation Using Plastic Waste, Paper Waste, and Coal as Fuel in a Chemical Looping Combustion Batch Reactor. <i>Chemical Engineering and Technology</i> , 2021, 44, 1075-1083.	1.5	7
676	Preparation of Metal Oxide-based Oxygen Carriers Supported with CeO ₂ and Al ₂ O ₃ for Chemical Looping Combustion. <i>Chemical Engineering and Technology</i> , 2021, 44, 782-787.	1.5	6
677	Predominance of Subsurface and Bulk Oxygen Vacancies in Reduced Manganese Oxide. <i>Journal of Physical Chemistry C</i> , 2021, 125, 7990-7998.	3.1	6
678	Impact of carbon capture technologies on GHG emissions from oil sands in-situ facilities: A system prospective. <i>Applied Thermal Engineering</i> , 2021, 188, 116603.	6.0	7
679	Capture and Reuse of Carbon Dioxide (CO ₂) for a Plastics Circular Economy: A Review. <i>Processes</i> , 2021, 9, 759.	2.8	41
680	Optimization of Methods for Purification of Gas Mixtures to Remove Carbon Dioxide (A Review). <i>Petroleum Chemistry</i> , 2021, 61, 407-423.	1.4	10

#	ARTICLE	IF	CITATIONS
681	Vanadium recovery from steel converter slag utilised as an oxygen carrier in oxygen carrier aided combustion (OCAC). <i>Journal of Cleaner Production</i> , 2021, 293, 126159.	9.3	11
682	Reactivity and lifetime assessment of an oxygen releasable manganese ore with biomass fuels in a 10 kWth pilot rig for chemical looping combustion. <i>Fuel Processing Technology</i> , 2021, 215, 106743.	7.2	39
683	Novel two-stage fluidized bed-plasma gasification integrated with SOFC and chemical looping combustion for the high efficiency power generation from MSW: A thermodynamic investigation. <i>Energy Conversion and Management</i> , 2021, 236, 114066.	9.2	36
684	Numerical analysis of multiphase flow in chemical looping reforming process for hydrogen production and CO ₂ capture. <i>Experimental and Computational Multiphase Flow</i> , 2022, 4, 360-376.	3.9	20
685	Synthesis of a new self-supported Mgy(CuxNi0.6-xMn0.4)1-yFe2O4 oxygen carrier for chemical looping steam methane reforming process. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 19397-19420.	7.1	18
686	Preparation of Aerogel-Supported Copper Oxide for the Methane Chemical Looping Combustion (CLC) Process. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 8227-8235.	3.7	10
687	Thermodynamic analysis of integrated adiabatic chemical looping combustion and supercritical CO ₂ cycle. <i>Energy Conversion and Management: X</i> , 2021, 10, 100078.	1.6	6
688	Recent Advances and Development of Various Oxygen Carriers for the Chemical Looping Combustion Process: A Review. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 8621-8641.	3.7	44
689	Cu-Mn oxygen carrier with improved mechanical resistance: Analyzing performance under CLC and CLOU environments. <i>Fuel Processing Technology</i> , 2021, 217, 106819.	7.2	13
690	In-situ reforming and combustion of liquid fuel using MnOx/Ce- γ -Al ₂ O ₃ oxygen carrier in a chemical looping combustion process. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 25500-25512.	7.1	8
691	Chemical looping gasification of torrefied woodchips in a bubbling fluidized bed test rig using iron-based oxygen carriers. <i>Renewable Energy</i> , 2021, 172, 34-45.	8.9	21
692	Techno-economic analysis of processes with integration of fluidized bed heat exchangers for H ₂ production – Part 2: Chemical-looping combustion. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 25355-25375.	7.1	14
693	Redox performance of manganese ore in a fluidized bed thermogravimetric analyzer for chemical looping combustion. <i>Fuel</i> , 2021, 295, 120564.	6.4	26
694	CFD study of nonuniformity of gas-solid flow through a chemical looping combustion system with symmetrical series loops. <i>Powder Technology</i> , 2021, 387, 108-124.	4.2	6
695	Effects of introducing foreign ion K on the reduction kinetics of oxygen carriers in chemical looping air separation process. <i>Environmental Progress and Sustainable Energy</i> , 2022, 41, e13720.	2.3	0
696	Evaluation of Ca ₂ CuO ₃ as an oxygen carrier material. <i>Materials Letters</i> , 2021, 297, 129968.	2.6	2
697	Feasibility Study of an Iron-Based Composite Added with Al ₂ O ₃ /ZrO ₂ as an Oxygen Carrier in the Chemical Looping Applications. <i>Crystals</i> , 2021, 11, 971.	2.2	3
698	Development of an unmixed combustion (UMC) based water heating system – Modeling and CFD simulation study for the oxidation cycle. <i>Thermal Science and Engineering Progress</i> , 2021, 24, 100924.	2.7	3

#	ARTICLE	IF	CITATIONS
699	CO2 capturing methods: Chemical looping combustion (CLC) as a promising technique. Science of the Total Environment, 2021, 788, 147850.	8.0	68
700	Mechanistic study of the effect of oxygen vacancy and sulfur poisoning on the reaction of copper ferrite spinel with CO during chemical-looping combustion. Fuel, 2021, 299, 120931.	6.4	14
701	Characterization, kinetics and stability studies of NiO and CuO supported by Al ₂ O ₃ , ZrO ₂ , CeO ₂ and their combinations in chemical looping combustion. Catalysis Today, 2022, 397-399, 206-219.	4.4	4
702	Development and progress of functionalized silica-based adsorbents for CO ₂ capture. Journal of Molecular Liquids, 2021, 338, 116913.	4.9	27
703	Carbon Capture Systems for Building-Level Heating Systems—A Socio-Economic and Environmental Evaluation. Sustainability, 2021, 13, 10681.	3.2	4
704	Bulk permeability characteristics in a biomass moving bed and their effects on reactor design and scaling. Chemical Engineering Journal, 2021, 420, 129979.	12.7	6
705	Assessment of correlations for minimum fluidization velocity of binary mixtures of particles in gas fluidized beds. Powder Technology, 2021, 394, 1231-1239.	4.2	5
706	Integrated capture and conversion of CO ₂ into methane using NaNO ₃ /MgO+Ru/Al ₂ O ₃ as a catalytic sorbent. Chemical Engineering Journal, 2021, 420, 130369.	12.7	44
707	Highly flexible and energy-efficient process for converting coke-oven gas and pulverized coke into methanol and ammonia using chemical looping technology. Energy Conversion and Management, 2021, 248, 114796.	9.2	16
708	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.	7.9	9
709	Spatial evolution characteristics of active components of copper-iron based oxygen carrier in chemical looping combustion. Fuel, 2021, 306, 121650.	6.4	16
711	Assessment of mesoscale solid stress in coarse-grid TFM simulation of Geldart A particles in all fluidization regimes. AIChE Journal, 2018, 64, 3565-3581.	3.6	35
712	Examining the Cu-Mn-O Spinel System as an Oxygen Carrier in Chemical Looping Combustion. Energy Technology, 2013, 1, 59-69.	3.8	47
713	Metal Oxides for Carbon Dioxide Capture. Sustainable Agriculture Reviews, 2019, , 63-83.	1.1	6
714	Effects of Steam and CO ₂ in the Fluidizing Gas when Using Bituminous Coal in Chemical-Looping Combustion. , 2009, , 608-611.		9
715	Reactor Design, Cold-Model Experiment and CFD Modeling for Chemical Looping Combustion. , 2013, , 1209-1217.		2
716	Chemical Looping Reforming (CLR) System for H ₂ Production—A Review. Smart Innovation, Systems and Technologies, 2020, , 267-276.	0.6	7
717	Applying machine learning algorithms in estimating the performance of heterogeneous, multi-component materials as oxygen carriers for chemical-looping processes. Chemical Engineering Journal, 2020, 387, 124072.	12.7	48

#	ARTICLE	IF	CITATIONS
718	Study on multi-cycle reaction performance of Fe/Al compound oxygen carriers in chemical-looping pyrolysis of coal tar. Chemical Engineering Science, 2020, 217, 115530.	3.8	9
719	Design and Scheduling of Semibatch Chemical-Looping Reactors. Industrial & Engineering Chemistry Research, 2020, 59, 6994-7006.	3.7	10
720	Chemical Looping Technologies for CCS. RSC Energy and Environment Series, 2019, , 189-237.	0.5	2
721	Review of Computational Fluid Dynamics Studies on Chemical Looping Combustion. Journal of Energy Resources Technology, Transactions of the ASME, 2021, 143, .	2.3	13
722	Influence of the oxidation step on the behaviour and the performances of an oxygen carrier in fixed bed reactor. Materials Research, 2014, 17, 219-226.	1.3	3
723	Experimental Investigation on Mixing and Segregation Behavior of Oxygen Carrier and Biomass Particle in Fluidized Bed. Periodica Polytechnica, Mechanical Engineering, 2019, 63, 188-194.	1.4	6
724	Properties of Cu-based Oxygen Carrier Used for Chemical Looping Oxygen Production. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2013, 28, 1115-1120.	1.3	7
725	Chemical Looping Process - A Novel Technology for Inherent CO ₂ Capture. Aerosol and Air Quality Research, 2012, 12, 1421-1432.	2.1	52
726	Evolution, Fields of Research, and Future of Chemical-Looping Combustion (CLC) process: A Review. Environmental Engineering Research, 2014, 19, 299-308.	2.5	11
727	Emerging carbon abatement technologies to mitigate energy-carbon footprint- a review. Cleaner Materials, 2021, 2, 100020.	5.1	16
728	CO ₂ Capture using Dry Potassium-Based Sorbents in a Bubbling Fluidized-Bed Reactor. , 2009, , 562-568.		0
729	CO ₂ Capture and Sequestration. , 2012, , 2149-2163.		0
730	CO ₂ Capture and Sequestration. , 2013, , 597-617.		1
732	Fossil Fuels. , 2014, , 19-54.		0
733	Chemical Looping Combustion. , 2015, , 1-27.		0
734	Chemical Looping Combustion. , 2017, , 2647-2679.		0
735	CO ₂ Capture and Sequestration. , 2019, , 1-15.		0
736	In Situ Structural Variations of Individual Particles of an Al ₂ O ₃ -Supported Cu/Fe Spinel Oxygen Carrier During High-Temperature Oxidation and Reduction. Minerals, Metals and Materials Series, 2019, , 21-29.	0.4	0

#	ARTICLE	IF	CITATIONS
737	CO2 Sequestration: Processes and Methodologies. , 2019, , 619-668.		2
738	Crack propagation and attrition mechanism of oxygen carriers in chemical looping process. Fuel, 2022, 310, 122326.	6.4	9
739	CO2 Capture and Sequestration. , 2020, , 503-517.		2
741	Thermochemical Solutions for CO2 Utilization to Fuels and Value-Added Products. Green Energy and Technology, 2021, , 59-89.	0.6	2
742	Effect of Temperature on the Hydrodynamics of Steam Reactor in a Chemical Looping Reforming System. Springer Proceedings in Energy, 2021, , 417-425.	0.3	0
743	A Novel Workflow of Greenhouse Gas Capture and Utilization in Well Health Issue. , 2020, , .		1
744	In-situ analysis of the Al-Fe-Mn-Cu oxide oxygen carrier for chemical looping applications. Chemical Engineering Journal Advances, 2022, 9, 100203.	5.2	3
745	Recent advances on materials and processes for intensified production of blue hydrogen. Renewable and Sustainable Energy Reviews, 2022, 155, 111917.	16.4	32
746	The effects of WO3 addition to NiO/ZrO2 oxygen carriers for chemical looping combustion of methane. Journal of Environmental Chemical Engineering, 2022, 10, 106945.	6.7	8
747	DFT study of the reaction mechanism of CuO char in chemical-looping combustion. Sustainable Energy and Fuels, 2021, 5, 6014-6028.	4.9	2
748	Carbon Dioxide Emissions, Capture, Storage and Utilization: Review of Materials, Processes and Technologies. Progress in Energy and Combustion Science, 2022, 89, 100965.	31.2	200
749	Sequestration of nitrous oxide for nutrient recovery and product formation. , 2022, , 155-177.		0
752	Materials and Systems Design for Energy Conversion with CO ₂ Separation and Utilization Using Chemical-looping Technology. Journal of the Japan Petroleum Institute, 2022, 65, 1-10.	0.6	0
753	Advances in the integration of ionic liquids with the membrane technology for gas separation. , 2022, , 167-187.		4
754	Direct Non-Oxidative Conversion of Methane over Metal-Containing Zeolites: Main Strategies for Shifting the Thermodynamic Equilibrium (A Review). Petroleum Chemistry, 2022, 62, 280-290.	1.4	4
755	Assessment of a novel coupling integrated process for coproducing syngas and hydrogen from natural gas and biomass feedstocks with in-situ CO2 utilization. Energy Conversion and Management, 2022, 254, 115241.	9.2	9
756	Application of Aspen Plus Fluidized Bed Reactor Model for Chemical Looping of Synthesis Gas. SSRN Electronic Journal, 0, , .	0.4	0
757	Chemical Looping Combustion: A Brief Overview. Energies, 2022, 15, 1563.	3.1	63

#	ARTICLE	IF	CITATIONS
758	A New Method for Capturing CO ₂ from Effluent Gases Using a Rice-Based Product. <i>Energies</i> , 2022, 15, 2287.	3.1	2
759	A Theoretical Study of the Oxygen Release Mechanisms of a Cu-Based Oxygen Carrier during Chemical Looping with Oxygen Uncoupling. <i>Catalysts</i> , 2022, 12, 332.	3.5	5
760	A novel thermally stable Fe ₂ O ₃ /Al ₂ O ₃ nanofiber-based oxygen carrier for chemical-looping combustion. <i>Chemical Papers</i> , 2022, 76, 3987-3993.	2.2	5
761	CO ₂ -negative biomass conversion: An economic route with co-production of green hydrogen and highly porous carbon. <i>Applied Energy</i> , 2022, 311, 118685.	10.1	14
762	Modeling and CFD simulation of heat transfer process coupled with Unmixed Combustion for the application of generating superheated steam. <i>Applied Thermal Engineering</i> , 2022, 209, 118286.	6.0	3
763	Particle-scale study of coal-direct chemical looping combustion (CLC). <i>Energy</i> , 2022, 250, 123859.	8.8	8
764	Recent Advances in Small-Scale Carbon Capture Systems for Micro-Combined Heat and Power Applications. <i>Energies</i> , 2022, 15, 2938.	3.1	4
766	Novel La _{1-x} Ca _x MnO ₃ perovskite materials for chemical looping combustion applications. <i>International Journal of Energy Research</i> , 2022, 46, 20386-20400.	4.5	2
767	Oxygen uncoupling behaviour for ilmenite ore oxygen carrier generated from a calcination treatment mixed with natural manganese ore. <i>Canadian Journal of Chemical Engineering</i> , 2023, 101, 805-818.	1.7	3
768	Carbon capture for decarbonisation of energy-intensive industries: a comparative review of techno-economic feasibility of solid looping cycles. <i>Frontiers of Chemical Science and Engineering</i> , 2022, 16, 1291-1317.	4.4	11
769	A review of application and development of combustion technology for oil sludge. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2022, 57, 396-412.	1.7	2
770	The hydrodynamics of low-density particles and optimization of the EMMS calculation process. <i>Powder Technology</i> , 2022, 405, 117511.	4.2	4
771	Chemical Looping Technology. , 2022, , 1689-1723.		0
772	Alkali Emissions Characterization in Chemical Looping Combustion of Wood, Wood Char, and Straw Fuels. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
773	Experimental Investigation of the Effects of Fluidizing Gas on Copper–Manganese Mixed Oxide™s Reactivity for Chemical Looping Combustion of CH ₄ . <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 7245-7254.	3.7	4
774	Recent progress in the development of synthetic oxygen carriers for chemical looping combustion applications. <i>Catalysis Today</i> , 2023, 407, 21-51.	4.4	14
775	Application of Aspen Plus fluidized bed reactor model for chemical Looping of synthesis gas. <i>Fuel</i> , 2022, 324, 124698.	6.4	9
776	Mechanistic study of chemical looping reactions between solid carbon fuels and CuO. <i>Combustion and Flame</i> , 2022, 244, 112216.	5.2	4

#	ARTICLE	IF	CITATIONS
777	Substituting coal with renewable biomass for electricity production using co-gasification technique: A short-term sustainable pathway for developing countries. , 2022, , 179-202.		2
778	Review on the Theoretical Understanding of Oxygen Carrier Development for Chemical-Looping Technologies. Energy & Fuels, 2022, 36, 9373-9384.	5.1	12
779	Biomass ash chemistry in chemical looping: Interaction between organic-K and Fe ₂ O ₃ /Al ₂ O ₃ oxygen carrier using cellulose-CH ₃ COOK as model compound. Biomass and Bioenergy, 2022, 163, 106533.	5.7	6
780	Fe ₂ O ₃ /TiO ₂ oxygen carrier for chemical looping combustion of CO, H ₂ , and CH ₄ in a fluidized bed reactor. Materials Today Communications, 2022, 32, 104026.	1.9	2
781	Chemical looping reforming: process fundamentals and oxygen carriers. Discover Chemical Engineering, 2022, 2, .	2.2	8
782	Enhancement in oxygen transfer rate of CuMn ₂ O ₄ oxygen carrier via selective dopants: Role of dopant effects on O migration for chemical looping combustion. Catalysis Today, 2022, , .	4.4	0
783	Impact of ammonia treatment and platinum group or nickel metal decoration on the activated carbon storage of carbon dioxide and methane. Materials Research Express, 0, , .	1.6	0
784	Temperature-Programmed Reduction of NiO/Al ₂ O ₃ by Biochar In Situ Generated from Citric Acid. Processes, 2022, 10, 1542.	2.8	4
785	Steel Converter Slag as an Oxygen Carrierâ€™Interaction with Sulfur Dioxide. Energies, 2022, 15, 5922.	3.1	6
786	Hydrotalcite-Derived Copper-Based Oxygen Carrier Materials for Efficient Chemical-Looping Combustion of Solid Fuels with CO ₂ Capture. Energy & Fuels, 2022, 36, 11062-11076.	5.1	7
787	Intensified Chemical Looping Combustion Based Polygeneration for CO ₂ Valorization to Value-Added Chemicals (Methanol and DME). Industrial & Engineering Chemistry Research, 2022, 61, 11861-11879.	3.7	2
788	Applying a new configuration for thermal integration of ethane cracking and CLC processes to enhance the ethylene and hydrogen productions. Chemical Engineering Research and Design, 2022, 186, 672-684.	5.6	2
789	Recent advances on the modeling and optimization of CO ₂ capture processes. Computers and Chemical Engineering, 2022, 165, 107938.	3.8	9
790	Cellulose derivatives and cellulose-metal-organic frameworks for CO ₂ adsorption and separation. Journal of CO ₂ Utilization, 2022, 64, 102163.	6.8	20
791	Alkali emissions characterization in chemical looping combustion of wood, wood char, and straw fuels. Fuel Processing Technology, 2022, 237, 107447.	7.2	3
792	Improved fuel conversion through oxygen carrier aided combustion during incineration of biomass-based solid waste in a rotary kiln. Fuel, 2023, 331, 125714.	6.4	8
793	Redox oxide@molten salt as a generalized catalyst design strategy for oxidative dehydrogenation of ethane via selective hydrogen combustion. Applied Catalysis A: General, 2022, 646, 118869.	4.3	4
794	Migration Mechanism of Lattice Oxygen: Conversion of CO ₂ to CO Using NiFe ₂ O ₄ Spinel Oxygen Carrier in Chemical Looping Reactions. Catalysts, 2022, 12, 1181.	3.5	5

#	ARTICLE	IF	CITATIONS
795	CuO-based materials for thermochemical redox cycles: the influence of the formation of a CuO percolation network on oxygen release and oxidation kinetics. Discover Chemical Engineering, 2022, 2, .	2.2	1
796	Investigation on the Redox Properties of a Novel Cu-Based Pr-Modified Oxygen Carrier for Chemical Looping Combustion. ACS Omega, 2022, 7, 40789-40798.	3.5	3
797	On the Kinetic Mechanisms of the Reduction and Oxidation Reactions of Iron Oxide/Iron Pellets for a Hydrogen Storage Process. Energies, 2022, 15, 8322.	3.1	4
798	Research Progress and Perspectives of Solid Fuels Chemical Looping Reaction with Fe-Based Oxygen Carriers. Energy & Fuels, 2022, 36, 13956-13984.	5.1	21
799	Simulation and Optimization of a Multistage Interconnected Fluidized Bed Reactor for Coal Chemical Looping Combustion. ACS Omega, 2022, 7, 40990-41000.	3.5	2
800	Desulfurization performance of chemical looping conversion using red mud as an oxygen carrier. Chemical Engineering Journal, 2023, 458, 141438.	12.7	2
801	Exploring depolymerization mechanism and complex reaction networks of aromatic structures in chemical looping combustion via ReaxFF MD simulations. Journal of the Energy Institute, 2023, 107, 101180.	5.3	5
802	Advances in the application of active metal-based sorbents and oxygen carriers in chemical looping biomass steam gasification for H ₂ production. International Journal of Hydrogen Energy, 2023, 48, 10394-10422.	7.1	3
803	Macroscopic analysis of chemical looping combustion with ilmenite versus conventional oxides as oxygen carriers. International Journal of Chemical Reactor Engineering, 2023, .	1.1	0
804	Novel chemical looping oxidation of biomass-derived carbohydrates to super-high-yield formic acid using heteropolyacids as oxygen carrier. Renewable Energy, 2023, 207, 461-470.	8.9	10
805	Numerical analysis of a solar assisted chemical looping combustion combined power and sea water desalination plant. Case Studies in Thermal Engineering, 2023, 45, 102957.	5.7	1
806	Cu _x Mn _{1-x} Fe ₂ O ₄ as oxygen carrier for chemical looping steam methane reforming. Chemical Physics Impact, 2023, 6, 100191.	3.5	2
807	Rational design and reduction kinetics of efficient Ce-Co oxygen carriers for chemical looping reforming of methane. Fuel, 2023, 345, 128208.	6.4	4
808	Performance of fuel reactor in Chemical Looping Combustion system with various metal oxide particle size and operating temperature. International Journal of Thermofluids, 2023, 17, 100295.	7.8	3
809	The Sustainable Synthesis of Methanol “Renewable Energy, Carbon Dioxide and an Anthropogenic Carbon Cycle. , 2014, , 193-258.		0
810	Aspen Plus simulation of Chemical Looping Combustion of syngas and methane in fluidized beds. Discover Chemical Engineering, 2023, 3, .	2.2	1
811	Power generation from syngas. , 2023, , 289-319.		0
812	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.	7.1	17

#	ARTICLE	IF	CITATIONS
813	The Evolution of OCAC and Its Working Principles. , 2023, , 9-17.		0
814	A review of chemical looping reforming technologies for hydrogen production: recent advances and future challenges. JPhys Energy, 2023, 5, 024010.	5.3	1
815	Combining renewable sources towards negative carbon emission hydrogen. International Journal of Hydrogen Energy, 2023, , .	7.1	1
816	Material Design Concepts and Gas Separation Mechanism of CO ₂ Selective Polyetherâ€Based Multiblock Copolymers. Macromolecular Rapid Communications, 0, , .	3.9	1
817	Chemical looping combustion (CLC) of municipal solid waste (MSW). Journal of Material Cycles and Waste Management, 2023, 25, 1900-1920.	3.0	4
818	TGA Study of the Reaction Kinetics of a CuFeMnAlO _{4+Î} Oxygen Carrier for Methane Chemical Looping Combustion under High Pressure and Atmospheric Pressure Conditions. Energy & Fuels, 2023, 37, 8472-8485.	5.1	0
819	Chemical looping combustion oxygen carrier production cost study. Applied Energy, 2023, 345, 121293.	10.1	3
821	Surface enrichment of lanthanum on Co3O4 for stable chemical looping combustion. Journal of CO2 Utilization, 2023, 73, 102532.	6.8	5
822	Design of a packed bed chemical looping (unmixed) combustion reactor for the application of heating liquid: A theoretical study. , 2023, 13, 593-610.		1
823	The bifunctional oxygen carrier K/LayCoxFe1-xO3 for the production of C2â€C4 olefins via CO2 hydrogenation. International Journal of Hydrogen Energy, 2024, 51, 368-381.	7.1	1
824	Operational experiences of chemical-looping combustion with 18 manganese ores in a 300W unit. International Journal of Greenhouse Gas Control, 2023, 127, 103937.	4.6	0
826	Chemical looping approaches to decarbonization via CO2 repurposing. Discover Chemical Engineering, 2023, 3, .	2.2	1
827	NO/SO2/HCl emissions from solid waste combustion via oxygen-carrier-aided combustion in rotary kiln. Fuel, 2024, 357, 129902.	6.4	1
828	Numerical Study on the Hydrodynamics of a Chemical Looping Combustion System with a Binary-Particle Mixture. Industrial & Engineering Chemistry Research, 2023, 62, 15675-15686.	3.7	0
829	Bioenergy with carbon capture, storage and utilization: Potential technologies to mitigate climate change. Biomass and Bioenergy, 2023, 177, 106941.	5.7	1
830	Optimal operation of a large-scale packed bed chemical-looping combustion process using nonlinear model predictive control. Fuel, 2024, 357, 129876.	6.4	1
831	Chemical looping combustion in polygeneration systems. , 2024, , 373-392.		1
832	Biomass-based hybrid energy systems. , 2024, , 313-371.		0

#	ARTICLE	IF	CITATIONS
833	Application of Packed Bed Chemical Looping (Unmixed) Combustion for water heating: Modelling and CFD simulation for Reduction cycle. Chemical Engineering and Processing: Process Intensification, 2023, , 109569.	3.6	0
834	Enhanced oxygen transfer rate of chemical looping combustion through lattice expansion on $\text{CuMn}_{2\text{O}_4}$ oxygen carrier. Sustainable Energy and Fuels, 0, , .	4.9	0
835	Feasibility of CO_2 desorption and electrolytic regeneration of potassium carbonate solution in an anion exchange membrane cell. , 0, 2, .		0
836	Evaluating bimetallic Ni-Co oxygen carriers for their redox behavior and catalytic activity toward steam methane reforming. Fuel, 2024, 359, 130272.	6.4	2
837	Control of strong electronic oxide-support interaction in iron-based redox catalysts for highly efficient chemical looping CO_2 conversion. Applied Catalysis B: Environmental, 2024, 343, 123531.	20.2	2
838	Performance of fuel reactor in chemical looping combustion system with mixed metal oxides. International Journal of Thermofluids, 2023, 20, 100524.	7.8	0
839	Effect of mass flow rates in fuel reactor of chemical looping combustion system. AIP Conference Proceedings, 2023, , .	0.4	0
840	Conversion of CO_2 into Glycolic Acid: A Review of Main Steps and Future Challenges. Catalysts, 2024, 14, 4.	3.5	0
841	Theoretical Study of the Reactive Mechanisms of Li-Doped Ni-Based Oxygen Carrier during Chemical Looping Combustion. ACS Omega, 0, , .	3.5	0
842	Copper-based chemical looping air separation process: Thermodynamics, kinetic modeling, and simulation of the fluidized beds. Separation and Purification Technology, 2024, 335, 126149.	7.9	0
843	Interaction of SO_2 with a Cu-Mn oxide oxygen carrier during chemical looping with oxygen uncoupling. Reaction Chemistry and Engineering, 2024, 9, 888-900.	3.7	0
844	Feasibility of carbon-capturing in building heating systems: A life cycle thinking-based approach. International Journal of Greenhouse Gas Control, 2024, 132, 104056.	4.6	0
845	High-throughput ab initio calculations and machine learning to discover SrFeO_3 -based perovskites for chemical-looping applications. Cell Reports Physical Science, 2024, 5, 101797.	5.6	0
846	Lagrangian Simulation of a CLC Reactor. , 2024, , 109-126.		0
848	A conceptual investigation for a novel CO_2 -self-supplied integrated reactor containing ethane thermal cracking and CLC processes. Results in Engineering, 2024, 21, 101882.	5.1	0
849	Optimizing syngas production for chemicals and/or hydrogen using 2 and 3-cycle Unmixed Reforming: A comparative thermodynamic study. Fuel, 2024, 365, 131104.	6.4	0
850	Non-chemically valorizing the retired cathode of ternary lithium-ion battery to high-performance oxygen carrier for chemical looping combustion. Journal of Cleaner Production, 2024, 444, 141301.	9.3	0
851	Financial performance, intellectual capital disclosure and firm value: the winning edge. Cogent Business and Management, 2024, 11, .	2.9	0

#	ARTICLE	IF	CITATIONS
852	Chemical looping gasification of lignite to syngas using phosphogypsum: Overview and prospects. Journal of Cleaner Production, 2024, 445, 141329.	9.3	0
853	The significant role of waste to energy on decarbonization. , 2024, , 323-344.		0
854	Integration of carbon emission reduction policies and technologies: Research progress on carbon capture, utilization and storage technologies. Separation and Purification Technology, 2024, 343, 127153.	7.9	0
855	Effectiveness of Three Reactor Chemical Looping for ammonia production using Aspen Plus simulation. International Journal of Hydrogen Energy, 2024, 61, 1340-1355.	7.1	0