Tobias Mattisson

List of Publications by Year in descending order

175 papers	15,089 citations	14614 66 h-index	18606 119 g-index
178 all docs	178 docs citations	178 times ranked	2612 citing authors

#	Article	IF	Citations
1	A fluidized-bed combustion process with inherent CO2 separation; application of chemical-looping combustion. Chemical Engineering Science, 2001, 56, 3101-3113.	1.9	927
2	Chemical-looping with oxygen uncoupling for combustion of solid fuels. International Journal of Greenhouse Gas Control, 2009, 3, 11-19.	2.3	554
3	Comparison of iron-, nickel-, copper- and manganese-based oxygen carriers for chemical-looping combustion. Fuel, 2004, 83, 1215-1225.	3.4	550
4	Thermal Analysis of Chemical-Looping Combustion. Chemical Engineering Research and Design, 2006, 84, 795-806.	2.7	377
5	The use of iron oxide as an oxygen carrier in chemical-looping combustion of methane with inherent separation of CO2. Fuel, 2001, 80, 1953-1962.	3.4	354
6	Solid fuels in chemical-looping combustion. International Journal of Greenhouse Gas Control, 2008, 2, 180-193.	2.3	312
7	The use of ilmenite as an oxygen carrier in chemical-looping combustion. Chemical Engineering Research and Design, 2008, 86, 1017-1026.	2.7	308
8	Reactivity of Some Metal Oxides Supported on Alumina with Alternating Methane and OxygenApplication for Chemical-Looping Combustion. Energy & Fuels, 2003, 17, 643-651.	2.5	294
9	The use of iron oxide as oxygen carrier in a chemical-looping reactor. Fuel, 2007, 86, 1021-1035.	3.4	284
10	The use of NiO as an oxygen carrier in chemical-looping combustion. Fuel, 2006, 85, 736-747.	3.4	277
11	The use of petroleum coke as fuel in chemical-looping combustion. Fuel, 2007, 86, 1947-1958.	3.4	266
12	Multicycle Reduction and Oxidation of Different Types of Iron Oxide ParticlesApplication to Chemical-Looping Combustion. Energy & Fuels, 2004, 18, 628-637.	2.5	260
13	Chemical-looping combustion in a 300W continuously operating reactor system using a manganese-based oxygen carrier. Fuel, 2006, 85, 1174-1185.	3.4	259
14	Integrated Hydrogen and Power Production with CO2Capture Using Chemical-Looping ReformingRedox Reactivity of Particles of CuO, Mn2O3, NiO, and Fe2O3Using SiO2as a Support. Industrial & Engineering Chemistry Research, 2005, 44, 3485-3496.	1.8	248
15	Synthesis gas generation by chemical-looping reforming in a continuously operating laboratory reactor. Fuel, 2006, 85, 1631-1641.	3.4	236
16	Redox Investigation of Some Oxides of Transition-State Metals Ni, Cu, Fe, and Mn Supported on SiO2and MgAl2O4. Energy & Fuels, 2006, 20, 34-44.	2.5	228
17	Novel oxygen-carrier materials for chemical-looping combustion and chemical-looping reforming; LaxSr1â^'xFeyCo1â^'yO3â^'Î´ perovskites and mixed-metal oxides of NiO, Fe2O3 and Mn3O4. International Journal of Greenhouse Gas Control, 2008, 2, 21-36.	2.3	222
18	Combined oxides as oxygen-carrier material for chemical-looping with oxygen uncoupling. Applied Energy, 2014, 113, 1924-1932.	5.1	218

#	Article	IF	Citations
19	Chemical-looping with oxygen uncoupling using CuO/ZrO2 with petroleum coke. Fuel, 2009, 88, 683-690.	3.4	208
20	Carbon Formation on Nickel and Iron Oxide-Containing Oxygen Carriers for Chemical-Looping Combustion. Industrial & Engineering Chemistry Research, 2005, 44, 668-676.	1.8	206
21	Manganese/Iron, Manganese/Nickel, and Manganese/Silicon Oxides Used in Chemical-Looping With Oxygen Uncoupling (CLOU) for Combustion of Methane. Energy & Fuels, 2009, 23, 5269-5275.	2.5	188
22	Investigation of Fe2O3with MgAl2O4for Chemical-Looping Combustion. Industrial & Engineering Chemistry Research, 2004, 43, 6978-6987.	1.8	183
23	Chemical-Looping Combustion and Chemical-Looping Reforming in a Circulating Fluidized-Bed Reactor Using Ni-Based Oxygen Carriers. Energy & Fuels, 2008, 22, 2585-2597.	2.5	179
24	Long-term integrity testing of spray-dried particles in a 10-kW chemical-looping combustor using natural gas as fuel. Fuel, 2009, 88, 2083-2096.	3.4	172
25	Chemical-looping technologies using circulating fluidized bed systems: Status of development. Fuel Processing Technology, 2018, 172, 1-12.	3.7	172
26	160h of chemical-looping combustion in a 10kW reactor system with a NiO-based oxygen carrier. International Journal of Greenhouse Gas Control, 2008, 2, 520-530.	2.3	166
27	Use of CaMn_{0.875}Ti_{0.125}O₃as Oxygen Carrier in Chemical-Looping with Oxygen Uncoupling. Energy & Fuels, 2009, 23, 5276-5283.	2.5	151
28	Solid fuels in chemical-looping combustion using oxide scale and unprocessed iron ore as oxygen carriers. Fuel, 2009, 88, 1945-1954.	3.4	150
29	Use of Ores and Industrial Products As Oxygen Carriers in Chemical-Looping Combustion. Energy & Fuels, 2009, 23, 2307-2315.	2.5	150
30	11,000â€¯h of chemical-looping combustion operationâ€”Where are we and where do we want to go?. International Journal of Greenhouse Gas Control, 2019, 88, 38-56.	2.3	148
31	Measuring attrition resistance of oxygen carrier particles for chemical looping combustion with a customized jet cup. Powder Technology, 2014, 256, 75-86.	2.1	143
32	Investigation of Mn3O4 With Stabilized ZrO2 for Chemical-Looping Combustion. Chemical Engineering Research and Design, 2006, 84, 807-818.	2.7	140
33	A 300W laboratory reactor system for chemical-looping combustion with particle circulation. Fuel, 2006, 85, 1428-1438.	3.4	139
34	Chemical-looping combustion using syngas as fuel. International Journal of Greenhouse Gas Control, 2007, 1, 158-169.	2.3	139
35	Combustion of Syngas and Natural Gas in a 300 W Chemical-Looping Combustor. Chemical Engineering Research and Design, 2006, 84, 819-827.	2.7	137
36	Reduction and oxidation kinetics of Mn3O4/Mgâ€“ZrO2 oxygen carrier particles for chemical-looping combustion. Chemical Engineering Science, 2007, 62, 6556-6567.	1.9	136

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37	Prospects of Al₂O₃ and MgAl₂O₄-Supported CuO Oxygen Carriers in Chemical-Looping Combustion (CLC) and Chemical-Looping with Oxygen Uncoupling (CLOU). Energy & Fuels, 2011, 25, 5493-5502.	2.5	133
38	CaMn0.875Ti0.125O3 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.	2.3	132
39	Using chemical-looping with oxygen uncoupling (CLOU) for combustion of six different solid fuels. Energy Procedia, 2009, 1, 447-453.	1.8	128
40	Natural minerals as oxygen carriers for chemical looping combustion in a dual circulating fluidized bed system. Energy Procedia, 2009, 1, 27-34.	1.8	125
41	Investigation of different manganese ores as oxygen carriers in chemical-looping combustion (CLC) for solid fuels. Applied Energy, 2014, 113, 1883-1894.	5.1	124
42	Defluidization Conditions for a Fluidized Bed of Iron Oxide-, Nickel Oxide-, and Manganese Oxide-Containing Oxygen Carriers for Chemical-Looping Combustion. Industrial & Engineering Chemistry Research, 2006, 45, 968-977.	1.8	116
43	Investigation of Different Mnâ€"Fe Oxides as Oxygen Carrier for Chemical-Looping with Oxygen Uncoupling (CLOU). Energy & Fuels, 2013, 27, 367-377.	2.5	116
44	Creating a Synergy Effect by Using Mixed Oxides of Iron- and Nickel Oxides in the Combustion of Methane in a Chemical-Looping Combustion Reactor. Energy & Fuels, 2006, 20, 2399-2407.	2.5	110
45	Chemical â€“ Looping with oxygen uncoupling using Mn/Mg-based oxygen carriers â€“ Oxygen release and reactivity with methane. Fuel, 2011, 90, 941-950.	3.4	109
46	Materials for Chemical-Looping with Oxygen Uncoupling. ISRN Chemical Engineering, 2013, 2013, 1-19.	1.2	108
47	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
48	A Two-Compartment Fluidized Bed Reactor for CO2Capture by Chemical-Looping Combustion. Chemical Engineering and Technology, 2004, 27, 1318-1326.	0.9	101
49	NiO supported on Mgâ€"ZrO2 as oxygen carrier for chemical-looping combustion and chemical-looping reforming. Energy and Environmental Science, 2009, 2, 970.	15.6	98
50	Chemical Looping Combustion and Chemical Looping with Oxygen Uncoupling Experiments in a Batch Reactor Using Spray-Dried CaMn_{1â€"x}M_xO_{3â^Î´} (M = Ti,) Tj ET Q q 0 0 0 rg BT /Overl	2.2	98
51	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.	2.7	95
52	Comparison of oxygen carriers for chemical-looping combustion. Thermal Science, 2006, 10, 93-107.	0.5	93
53	CaMn_{0.9}Mg_{0.1}O_{3-Î´} as Oxygen Carrier in a Gas-Fired 10 kW_{th}Chemical-Looping Combustion Unit. Industrial & Engineering Chemistry Research, 2013, 52, 6923-6932.	1.8	92
54	Reaction Kinetics of Freeze-Granulated NiO/MgAl2O4Oxygen Carrier Particles for Chemical-Looping Combustion. Energy & Fuels, 2007, 21, 610-618.	2.5	91

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55	Using continuous and pulse experiments to compare two promising nickel-based oxygen carriers for use in chemical-looping technologies. Fuel, 2008, 87, 988-1001.	3.4	84
56	Chemical-looping with oxygen uncoupling using combined Mn-Fe oxides, testing in batch fluidized bed. Energy Procedia, 2011, 4, 370-377.	1.8	84
57	Gasification inhibition in chemical-looping combustion with solid fuels. Combustion and Flame, 2011, 158, 393-400.	2.8	83
58	Gas leakage measurements in a cold model of an interconnected fluidized bed for chemical-looping combustion. Powder Technology, 2003, 134, 210-217.	2.1	82
59	Chemical-looping combustion and chemical-looping with oxygen uncoupling of kerosene with Mn- and Cu-based oxygen carriers in a circulating fluidized-bed 300W laboratory reactor. Fuel Processing Technology, 2012, 104, 378-389.	3.7	82
60	Use of NiO/NiAl2O4 Particles in a 10 kW Chemical-Looping Combustor. Industrial & Engineering Chemistry Research, 2006, 45, 5911-5919.	1.8	77
61	Oxygen Release and Oxidation Rates of MgAl₂O₄-Supported CuO Oxygen Carrier for Chemical-Looping Combustion with Oxygen Uncoupling (CLOU). Energy & Fuels, 2012, 26, 6528-6539.	2.5	75
62	Evaluation of CuAl₂O₄ as an Oxygen Carrier in Chemical-Looping Combustion. Industrial & Engineering Chemistry Research, 2012, 51, 13924-13934.	1.8	73
63	(<scp>Mn_zFe_{1â€”z})_yO_x</scp> combined oxides as oxygen carrier for chemicalâ€looping with oxygen uncoupling. AICHE Journal, 2013, 59, 582-588.	1.8	73
64	Screening of different manganese ores for chemical-looping combustion (CLC) and chemical-looping with oxygen uncoupling (CLOU). International Journal of Greenhouse Gas Control, 2015, 43, 179-188.	2.3	70
65	Solid fuels in chemical-looping combustion using a NiO-based oxygen carrier. Chemical Engineering Research and Design, 2009, 87, 1543-1550.	2.7	69
66	Ilmenite with addition of NiO as oxygen carrier for chemical-looping combustion. Fuel, 2010, 89, 3523-3533.	3.4	68
67	Investigation of Combined Supports for Cu-Based Oxygen Carriers for Chemical-Looping with Oxygen Uncoupling (CLOU). Energy & Fuels, 2013, 27, 3918-3927.	2.5	65
68	Using Low-Cost Iron-Based Materials as Oxygen Carriers for Chemical Looping Combustion. Oil and Gas Science and Technology, 2011, 66, 235-248.	1.4	62
69	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.	2.3	62
70	Investigation of Different NiO/NiAl₂O₄ Particles as Oxygen Carriers for Chemical-Looping Combustion. Energy & Fuels, 2009, 23, 665-676.	2.5	61
71	Investigation of NiO/NiAl2O4 oxygen carriers for chemical-looping combustion produced by spray-drying. International Journal of Greenhouse Gas Control, 2010, 4, 23-35.	2.3	61
72	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.	5.1	58

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73	High Reactivity and Mechanical Durability of NiO/NiAl₂O₄ and NiO/NiAl₂O₄/MgAl₂O₄ Oxygen Carrier Particles Used for more than 1000 h in a 10 kW CLC Reactor. Industrial & Engineering Chemistry Research, 2009, 48, 7400-7405.	1.8	56
74	Use of manganese ore in chemical-looping combustion (CLC)â€"Effect on steam gasification. International Journal of Greenhouse Gas Control, 2012, 8, 56-60.	2.3	54
75	Ca_xLa_{1â€“x}Mn_{1â€“y}M_yO_{3â^Î´} (M = Mg, Ti, Fe, or Cu) as Oxygen Carriers for Chemical-Looping with Oxygen Uncoupling (CLOU). Energy & Fuels, 2013, 27, 4097-4107.	2.5	54
76	CuO-Based Oxygen-Carrier Particles for Chemical-Looping with Oxygen Uncoupling â€“ Experiments in Batch Reactor and in Continuous Operation. Industrial & Engineering Chemistry Research, 2014, 53, 6255-6267.	1.8	54
77	NiO particles with Ca and Mg based additives produced by spray- drying as oxygen carriers for chemical-looping combustion. Energy Procedia, 2009, 1, 479-486.	1.8	53
78	Investigation of Natural and Synthetic Bed Materials for Their Utilization in Chemical Looping Reforming for Tar Elimination in Biomass-Derived Gasification Gas. Energy & Fuels, 2014, 28, 3833-3840.	2.5	53
79	High temperature behavior of NiO-based oxygen carriers for Chemical Looping Combustion. Energy Procedia, 2009, 1, 3885-3892.	1.8	51
80	Evaluation of Novel Ceria-Supported Metal Oxides As Oxygen Carriers for Chemical-Looping Combustion. Industrial & Engineering Chemistry Research, 2012, 51, 12796-12806.	1.8	51
81	Chemical-looping combustion in a 100â€¯kW unit using a mixture of synthetic and natural oxygen carriers â€“ Operational results and fate of biomass fuel alkali. International Journal of Greenhouse Gas Control, 2019, 88, 371-382.	2.3	51
82	Innovative Oxygen Carriers Uplifting Chemical-looping Combustion. Energy Procedia, 2014, 63, 113-130.	1.8	50
83	Steel converter slag as an oxygen carrier in a 12 MWth CFB boiler â€“ Ash interaction and material evolution. International Journal of Greenhouse Gas Control, 2019, 88, 321-331.	2.3	50
84	Chemical looping tar reforming using La/Sr/Fe-containing mixed oxides supported on ZrO 2. Applied Catalysis B: Environmental, 2016, 183, 298-307.	10.8	48
85	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.	6.6	48
86	Interaction of mineral matter of coal with oxygen carriers in chemical-looping combustion (CLC). Chemical Engineering Research and Design, 2014, 92, 1753-1770.	2.7	47
87	Investigation of a calcium manganite as oxygen carrier during 99 h of operation of chemical-looping combustion in a 10 kW th reactor unit. International Journal of Greenhouse Gas Control, 2016, 53, 222-229.	2.3	47
88	Examining the Cu-Mn-O Spinel System as an Oxygen Carrier in Chemical Looping Combustion. Energy Technology, 2013, 1, 59-69.	1.8	47
89	Investigation of NiO-based mixed oxides in a 300-W chemical-looping combustor. Chemical Engineering Research and Design, 2010, 88, 661-672.	2.7	46
90	Reactivity of a spray-dried NiO/NiAl2O4 oxygen carrier for chemical-looping combustion. Chemical Engineering Science, 2011, 66, 4636-4644.	1.9	46

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91	The Effect of Bituminous and Lignite Ash on the Performance of Ilmenite as Oxygen Carrier in Chemicalâ€Looping Combustion. Chemical Engineering and Technology, 2013, 36, 1460-1468.	0.9	46
92	Influence of Lime Addition to Ilmenite in Chemical-Looping Combustion (CLC) with Solid Fuels. Energy & Fuels, 2011, 25, 3843-3853.	2.5	44
93	Mnâ€“Fe Oxides with Support of MgAl₂O₄, CeO₂, ZrO₂ and Y₂O₃â€“ZrO₂ for Chemical-Looping Combustion and Chemical-Looping with Oxygen Uncoupling. Industrial & Engineering Chemistry Research, 2014, 53, 10358-10365.	1.8	44
94	A sulphur capture model for circulating fluidized-bed boilers. Chemical Engineering Science, 1998, 53, 1163-1173.	1.9	43
95	Steel converter slag as an oxygen carrier for chemical-looping gasification. Fuel Processing Technology, 2020, 210, 106576.	3.7	43
96	Mechanisms of Solid Fuel Conversion by Chemicalâ€Looping Combustion (CLC) using Manganese Ore: Catalytic Gasification by Potassium Compounds. Energy Technology, 2013, 1, 273-282.	1.8	42
97	Manganese ores as oxygen carriers for chemical-looping combustion (CLC) and chemical-looping with oxygen uncoupling (CLOU). Journal of Environmental Chemical Engineering, 2017, 5, 2552-2563.	3.3	42
98	Combined Cu/Mn Oxides as an Oxygen Carrier in Chemical Looping with Oxygen Uncoupling (CLOU). Energy & Fuels, 2013, 27, 6031-6039.	2.5	40
99	Exploring novel hydrogen production processes by integration of steam methane reforming with chemical-looping combustion (CLC-SMR) and oxygen carrier aided combustion (OCAC-SMR). International Journal of Greenhouse Gas Control, 2018, 74, 28-39.	2.3	40
100	The reaction of NiO/NiAl₂O₄ particles with alternating methane and oxygen. Canadian Journal of Chemical Engineering, 2008, 86, 756-767.	0.9	39
101	Chemical-looping combustion with heavy liquid fuels in a 10 kW pilotÂplant. Fuel Processing Technology, 2017, 156, 124-137.	3.7	39
102	Reactivity and lifetime assessment of an oxygen releasable manganese ore with biomass fuels in a 10 kWth pilot rig for chemical looping combustion. Fuel Processing Technology, 2021, 215, 106743.	3.7	39
103	Cu-impregnated alumina/silica bed materials for Chemical Looping Reforming of biomass gasification gas. Fuel, 2016, 180, 448-456.	3.4	38
104	Sulfur Tolerance of Ca_xMn_{1â€“y}M_yO_{3â^Î´} (M = Mg, Ti) Perovskite-Type Oxygen Carriers in Chemical-Looping with Oxygen Uncoupling (CLOU). Energy & Fuels, 2014, 28, 1312-1324.	2.5	37
105	Chemical-Looping Combustion with Fuel Oil in a 10 kW Pilot Plant. Energy & Fuels, 2014, 28, 5978-5987.	2.5	37
106	Examination of oxygen uncoupling behaviour and reactivity towards methane for manganese silicate oxygen carriers in chemical-looping combustion. International Journal of Greenhouse Gas Control, 2014, 29, 70-81.	2.3	35
107	Comprehensive study of Mnâ€“Feâ€“Al oxygen-carriers for chemical-looping with oxygen uncoupling (CLOU). International Journal of Greenhouse Gas Control, 2015, 34, 12-24.	2.3	34
108	Chemical Looping Combustion of Solid Fuels in a 10 kW_{th}Unit. Oil and Gas Science and Technology, 2011, 66, 181-191.	1.4	33

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109	Reaction between Sulfur Dioxide and Limestone under Periodically Changing Oxidizing and Reducing ConditionsEffect of Cycle Time. Energy & Fuels, 1998, 12, 905-912.	2.5	31
110	Waste products from the steel industry with NiO as additive as oxygen carrier for chemical-looping combustion. International Journal of Greenhouse Gas Control, 2009, 3, 693-703.	2.3	30
111	Chemical-looping Combustion CO2 Ready Gas Power. Energy Procedia, 2009, 1, 1557-1564.	1.8	30
112	Screening of supported and unsupported Mnâ€“Si oxygen carriers for CLOU (chemical-looping with) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	4.5	30
113	Chemical-looping combustion of synthetic biomass-volatiles with manganese-ore oxygen carriers. International Journal of Greenhouse Gas Control, 2018, 71, 239-252.	2.3	30
114	Thermochemical conversion of biomass volatiles via chemical looping: Comparison of ilmenite and steel converter waste materials as oxygen carriers. Fuel, 2022, 313, 122638.	3.4	30
115	Examination of Perovskite Structure CaMnO_{3-Î´}with MgO Addition as Oxygen Carrier for Chemical Looping with Oxygen Uncoupling Using Methane and Syngas. International Journal of Chemical Engineering, 2013, 2013, 1-16.	1.4	29
116	Combined oxides of iron, manganese and silica as oxygen carriers for chemical-looping combustion. Fuel Processing Technology, 2014, 124, 87-96.	3.7	29
117	Chemical-looping combustion using combined iron/manganese/silicon oxygen carriers. Applied Energy, 2015, 157, 330-337.	5.1	29
118	Innovative Oxygen Carrier Materials for Chemical-Looping Combustion. Energy Procedia, 2013, 37, 645-653.	1.8	28
119	Combined manganese oxides as oxygen carriers for biomass combustion â€” Ash interactions. Chemical Engineering Research and Design, 2019, 149, 104-120.	2.7	27
120	On the highâ€gasification rate of Brazilian manganese ore in chemicalâ€looping combustion (CLC) for solid fuels. AIChE Journal, 2013, 59, 4346-4354.	1.8	26
121	CaMnO3-Î´ Made from Low Cost Material Examined as Oxygen Carrier in Chemical-looping Combustion. Energy Procedia, 2014, 63, 80-86.	1.8	26
122	Development of CaMn0.775Mg0.1Ti0.125O3-Î´ oxygen carriers produced from different Mn and Ti sources. Materials and Design, 2016, 89, 527-542.	3.3	26
123	Interaction of oxygen carriers with common biomass ash components. Fuel Processing Technology, 2020, 200, 106313.	3.7	26
124	Oxygen release from manganese ores relevant for chemical looping with oxygen uncoupling conditions. Fuel, 2018, 232, 693-703.	3.4	25
125	Alkali-wall interactions in a laboratory-scale reactor for chemical looping combustion studies. Fuel Processing Technology, 2021, 217, 106828.	3.7	24
126	Thermogravimetric combined with mass spectrometric studies on the oxidation of calcium sulfide. Thermochimica Acta, 1997, 298, 87-93.	1.2	23

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127	Chemical-Looping Combustion with Liquid Fuels. Energy Procedia, 2013, 37, 654-661.	1.8	23
128	Use of CuO/MgAl₂O₄ and La_{0.8}Sr_{0.2}FeO₃/Î³â€Al₂O₃ in chemical looping reforming system for tar removal from gasification gas. AIChE Journal, 2016, 62, 38-45.	1.8	23
129	Experimental investigation of binary and ternary combined manganese oxides for chemical-looping with oxygen uncoupling (CLOU). Fuel, 2016, 164, 228-236.	3.4	23
130	Synthesis and upscaling of perovskite Mn-based oxygen carrier by industrial spray drying route. International Journal of Greenhouse Gas Control, 2018, 70, 68-75.	2.3	23
131	Fe₂O₃ on Ceâ€, Caâ€, or Mgâ€stabilized ZrO₂ as oxygen carrier for chemicalâ€looping combustion using NiO as additive. AIChE Journal, 2010, 56, 2211-2220.	1.8	22
132	CaMn_{0.875}Ti_{0.125}O_{3â^'Î´} as an Oxygen Carrier for Chemicalâ€Looping with Oxygen Uncoupling (CLOU)â€"Solidâ€Fuel Testing and Sulfur Interaction. Energy Technology, 2013, 1, 338-344.	1.8	22
133	(Fe1-xMnx)TiyO3 based Oxygen Carriers for Chemical-looping Combustion and Chemical-looping with Oxygen Uncoupling. Energy Procedia, 2014, 51, 85-98.	1.8	21
134	The EU-FP7 Project SUCCESS â€“ Scale-up of Oxygen Carrier for Chemical Looping Combustion using Environmentally Sustainable Materials. Energy Procedia, 2017, 114, 395-406.	1.8	21
135	Alkali interactions with a calcium manganite oxygen carrier used in chemical looping combustion. Fuel Processing Technology, 2022, 227, 107099.	3.7	20
136	Screening of Combined Mn-Fe-Si Oxygen Carriers for Chemical Looping with Oxygen Uncoupling (CLOU). Energy & Fuels, 2015, 29, 1868-1880.	2.5	19
137	Techno-economic analysis of H2 production processes using fluidized bed heat exchangers with steam reforming â€“ Part 1: Oxygen carrier aided combustion. International Journal of Hydrogen Energy, 2020, 45, 6059-6081.	3.8	18
138	Experimental evaluation of manganese ores for chemical looping conversion of synthetic biomass volatiles in a 300ÂW reactor system. Journal of Environmental Chemical Engineering, 2021, 9, 105112.	3.3	18
139	Oxidation behaviour of desulphurization residues from gasification and fuel-rich combustion. Fuel, 1999, 78, 225-231.	3.4	17
140	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
141	Oxygen carrier aided combustion (OCAC) of two waste fuels - Experimental and theoretical study of the interaction between ilmenite and zinc, copper and lead. Biomass and Bioenergy, 2021, 148, 106060.	2.9	17
142	Study of defluidization of iron- and manganese-based oxygen carriers under highly reducing conditions in a lab-scale fluidized-bed batch reactor. Fuel Processing Technology, 2021, 219, 106874.	3.7	17
143	A method of evaluating limestone reactivity with SO₂ under fluidized bed combustion conditions. Canadian Journal of Chemical Engineering, 1998, 76, 762-770.	0.9	16
144	The reaction between limestone and SO2 under periodically changing oxidizing and reducing conditions â€“ effect of temperature and limestone type. Thermochimica Acta, 1999, 325, 59-67.	1.2	16

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145	Investigation of Manganeseâ€“Iron Oxide Materials based on Manganese Ores as Oxygen Carriers for Chemical Looping with Oxygen Uncoupling (CLOU). Energy Technology, 2014, 2, 469-479.	1.8	16
146	Oxygenâ€Carrier Development of Calcium Manganiteâ€“Based Materials with Perovskite Structure for Chemicalâ€Looping Combustion of Methane. Energy Technology, 2020, 8, 2000069.	1.8	16
147	Chemical Looping Tar reforming with Fe,Sr-doped La2Zr2O7 pyrochlore supported on ZrO2. Applied Catalysis A: General, 2018, 550, 105-112.	2.2	15
148	ZrO2-Supported CuO Oxygen Carriers for Chemical-Looping with Oxygen Uncoupling (CLOU). Energy Procedia, 2013, 37, 550-559.	1.8	14
149	Sulfur Tolerance and Rate of Oxygen Release of Combined Mnâ€“Si Oxygen Carriers in Chemical-Looping with Oxygen Uncoupling (CLOU). Industrial & Engineering Chemistry Research, 2014, 53, 19488-19497.	1.8	14
150	Effect of Production Parameters on the Spray-Dried Calcium Manganite Oxygen Carriers for Chemical-Looping Combustion. Energy & Fuels, 2016, 30, 3257-3268.	2.5	14
151	Techno-economic analysis of processes with integration of fluidized bed heat exchangers for H2 production â€“ Part 2: Chemical-looping combustion. International Journal of Hydrogen Energy, 2021, 46, 25355-25375.	3.8	14
152	Effect of fuel particle size on reaction rate in chemical looping combustion. Chemical Engineering Science, 2010, 65, 5841-5851.	1.9	13
153	Regeneration of Calcium Sulfide under Alternating Oxidizing and Inert Conditions:Â Kinetics and Mechanism. Industrial & Engineering Chemistry Research, 1998, 37, 923-928.	1.8	12
154	Process Analysis of Chemical Looping Gasification of Biomass for Fischerâ€“Tropsch Crude Production with Net-Negative CO₂ Emissions: Part 1. Energy & Fuels, 2022, 36, 9687-9705.	2.5	12
155	Enhanced performance of manganese ore as oxygen carrier for chemical-looping with oxygen uncoupling (CLOU) by combination with Ca(OH)2 through spray-drying. Journal of Environmental Chemical Engineering, 2016, 4, 3707-3717.	3.3	11
156	An experimental study of a volatiles distributor for solid fuels chemical-looping combustion process. Fuel Processing Technology, 2021, 220, 106898.	3.7	11
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