Luis F De Diego

List of Publications by Citations

225 papers	14,306 citations	65 h-index	111 g-index
230 ext. papers	15,850 ext. citations	6.9 avg, IF	6.59 L-index

#	Paper	IF	Citations
225	Progress in Chemical-Looping Combustion and Reforming technologies. *Progress in Energy and Combustion Science*, **2012**, 38, 215-282	33.6	1554
224	Selection of Oxygen Carriers for Chemical-Looping Combustion. *Energy & Fuels*, **2004**, 18, 371-377	4.1	566
223	Mapping of the range of operational conditions for Cu-, Fe-, and Ni-based oxygen carriers in chemical-looping combustion. *Chemical Engineering Science*, **2007**, 62, 533-549	4.4	478
222	Development of Cu-based oxygen carriers for chemical-looping combustion. *Fuel*, **2004**, 83, 1749-1757	7.1	307
221	Chemical looping combustion of solid fuels. *Progress in Energy and Combustion Science*, **2018**, 65, 6-66	33.6	305
220	Chemical Looping Combustion in a 10 kWth Prototype Using a CuO/Al2O3 Oxygen Carrier: Effect of Operating Conditions on Methane Combustion. *Industrial & Engineering Chemistry Research*, **2006**, 45, 6075-6080	3.9	242
219	Operation of a 10 kWth chemical-looping combustor during 200 h with a CuO/Al2O3 oxygen carrier. *Fuel*, **2007**, 86, 1036-1045	7.1	239
218	Ilmenite Activation during Consecutive Redox Cycles in Chemical-Looping Combustion. *Energy & Fuels*, **2010**, 24, 1402-1413	4.1	235
217	Kinetics of redox reactions of ilmenite for chemical-looping combustion. *Chemical Engineering Science*, **2011**, 66, 689-702	4.4	220
216	Calcination of calcium-based sorbents at pressure in a broad range of CO2 concentrations. *Chemical Engineering Science*, **2002**, 57, 2381-2393	4.4	211
215	Demonstration of chemical-looping with oxygen uncoupling (CLOU) process in a 1.5kWth continuously operating unit using a Cu-based oxygen-carrier. *International Journal of Greenhouse Gas Control*, **2012**, 6, 189-200	4.2	206
214	Reduction Kinetics of Cu-, Ni-, and Fe-Based Oxygen Carriers Using Syngas (CO + H2) for Chemical-Looping Combustion. *Energy & Fuels*, **2007**, 21, 1843-1853	4.1	201
213	Effect of Pressure on the Behavior of Copper-, Iron-, and Nickel-Based Oxygen Carriers for Chemical-Looping Combustion. *Energy & Fuels*, **2006**, 20, 26-33	4.1	195
212	Impregnated CuO/Al2O3 Oxygen Carriers for Chemical-Looping Combustion: Avoiding Fluidized Bed Agglomeration. *Energy & Fuels*, **2005**, 19, 1850-1856	4.1	192
211	Behavior of ilmenite as oxygen carrier in chemical-looping combustion. *Fuel Processing Technology*, **2012**, 94, 101-112	7.2	179
210	Development of Cu-based oxygen carriers for Chemical-Looping with Oxygen Uncoupling (CLOU) process. *Fuel*, **2012**, 96, 226-238	7.1	168
209	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	4.2	161

208	The use of ilmenite as oxygen-carrier in a 500 Wth Chemical-Looping Coal Combustion unit. *International Journal of Greenhouse Gas Control*, **2011**, 5, 1630-1642	4.2	159
207	Hydrogen production by chemical-looping reforming in a circulating fluidized bed reactor using Ni-based oxygen carriers. *Journal of Power Sources*, **2009**, 192, 27-34	8.9	156
206	Reduction and oxidation kinetics of nickel-based oxygen-carriers for chemical-looping combustion and chemical-looping reforming. *Chemical Engineering Journal*, **2012**, 188, 142-154	14.7	142
205	Effect of support on reactivity and selectivity of Ni-based oxygen carriers for chemical-looping combustion. *Fuel*, **2008**, 87, 2641-2650	7.1	140
204	Effect of Fe□olivine on the tar content during biomass gasification in a dual fluidized bed. *Applied Catalysis B: Environmental*, **2012**, 121-122, 214-222	21.8	131
203	Temperature variations in the oxygen carrier particles during their reduction and oxidation in a chemical-looping combustion system. *Chemical Engineering Science*, **2005**, 60, 851-862	4.4	130
202	Synthesis gas generation by chemical-looping reforming in a batch fluidized bed reactor using Ni-based oxygen carriers. *Chemical Engineering Journal*, **2008**, 144, 289-298	14.7	127
201	Reduction and oxidation kinetics of Mn3O4/Mg□rO2 oxygen carrier particles for chemical-looping combustion. *Chemical Engineering Science*, **2007**, 62, 6556-6567	4.4	126
200	Methane Combustion in a 500 Wth Chemical-Looping Combustion System Using an Impregnated Ni-Based Oxygen Carrier. *Energy & Fuels*, **2009**, 23, 130-142	4.1	121
199	Modeling of the chemical-looping combustion of methane using a Cu-based oxygen-carrier. *Combustion and Flame*, **2010**, 157, 602-615	5.3	106
198	Syngas combustion in a 500 Wth Chemical-Looping Combustion system using an impregnated Cu-based oxygen carrier. *Fuel Processing Technology*, **2009**, 90, 1471-1479	7.2	105
197	Hydrogen production by auto-thermal chemical-looping reforming in a pressurized fluidized bed reactor using Ni-based oxygen carriers. *International Journal of Hydrogen Energy*, **2010**, 35, 151-160	6.7	104
196	Biomass combustion with CO2 capture by chemical looping with oxygen uncoupling (CLOU). *Fuel Processing Technology*, **2014**, 124, 104-114	7.2	102
195	NiO/Al2O3 oxygen carriers for chemical-looping combustion prepared by impregnation and deposition□precipitation methods. *Fuel*, **2009**, 88, 1016-1023	7.1	99
194	Fuel reactor modelling in chemical-looping combustion of coal: 1. model formulation. *Chemical Engineering Science*, **2013**, 87, 277-293	4.4	98
193	Evaluation of a Spray-Dried CuO/MgAl2O4 Oxygen Carrier for the Chemical Looping with Oxygen Uncoupling Process. *Energy & Fuels*, **2012**, 26, 3069-3081	4.1	98
192	Nickel□Copper Oxygen Carriers To Reach Zero CO and H2 Emissions in Chemical-Looping Combustion. *Industrial & Engineering Chemistry Research*, **2006**, 45, 2617-2625	3.9	97
191	Negative CO2 emissions through the use of biofuels in chemical looping technology: A review. *Applied Energy*, **2018**, 232, 657-684	10.7	93

190	Hydrogen production with CO2 capture by coupling steam reforming of methane and chemical-looping combustion: Use of an iron-based waste product as oxygen carrier burning a PSA tail gas. *Journal of Power Sources*, **2011**, 196, 4370-4381	8.9	87
189	Effect of Fuel Gas Composition in Chemical-Looping Combustion with Ni-Based Oxygen Carriers. 1. Fate of Sulfur. *Industrial & Engineering Chemistry Research*, **2009**, 48, 2499-2508	3.9	87
188	On the use of a highly reactive iron ore in Chemical Looping Combustion of different coals. *Fuel*, **2014**, 126, 239-249	7.1	86
187	Relevance of the coal rank on the performance of the in situ gasification chemical-looping combustion. *Chemical Engineering Journal*, **2012**, 195-196, 91-102	14.7	86
186	Optimization of hydrogen production by Chemical-Looping auto-thermal Reforming working with Ni-based oxygen-carriers. *International Journal of Hydrogen Energy*, **2011**, 36, 9663-9672	6.7	86
185	Performance of a highly reactive impregnated Fe2O3/Al2O3 oxygen carrier with CH4 and H2S in a 500Wth CLC unit. *Fuel*, **2014**, 121, 117-125	7.1	85
184	High temperature behaviour of a CuO/Al2O3 oxygen carrier for chemical-looping combustion. *International Journal of Greenhouse Gas Control*, **2011**, 5, 659-667	4.2	85
183	Effect of Support on the Behavior of Cu-Based Oxygen Carriers during Long-Term CLC Operation at Temperatures above 1073 K. *Energy & Fuels*, **2011**, 25, 1316-1326	4.1	84
182	Biomass combustion in a CLC system using an iron ore as an oxygen carrier. *International Journal of Greenhouse Gas Control*, **2013**, 19, 322-330	4.2	83
181	Reaction Kinetics of Freeze-Granulated NiO/MgAl2O4 Oxygen Carrier Particles for Chemical-Looping Combustion. *Energy & Fuels*, **2007**, 21, 610-618	4.1	83
180	Kinetic analysis of a Cu-based oxygen carrier: Relevance of temperature and oxygen partial pressure on reduction and oxidation reactions rates in Chemical Looping with Oxygen Uncoupling (CLOU). *Chemical Engineering Journal*, **2014**, 256, 69-84	14.7	82
179	Effect of gas composition in Chemical-Looping Combustion with copper-based oxygen carriers: Fate of sulphur. *International Journal of Greenhouse Gas Control*, **2010**, 4, 762-770	4.2	81
178	The Performance in a Fixed Bed Reactor of Copper-Based Oxides on Titania as Oxygen Carriers for Chemical Looping Combustion of Methane. *Energy & Fuels*, **2005**, 19, 433-441	4.1	81
177	Performance of CLOU process in the combustion of different types of coal with CO2 capture. *International Journal of Greenhouse Gas Control*, **2013**, 12, 430-440	4.2	80
176	Syngas combustion in a chemical-looping combustion system using an impregnated Ni-based oxygen carrier. *Fuel*, **2009**, 88, 2357-2364	7.1	79
175	Influence of operating parameters on NOx and N2O axial profiles in a circulating fluidized bed combustor. *Fuel*, **1996**, 75, 971-978	7.1	79
174	Effect of operating conditions in Chemical-Looping Combustion of coal in a 500Wth unit. *International Journal of Greenhouse Gas Control*, **2012**, 6, 153-163	4.2	78
173	Kinetic determination of a highly reactive impregnated Fe2O3/Al2O3 oxygen carrier for use in gas-fueled Chemical Looping Combustion. *Chemical Engineering Journal*, **2014**, 258, 265-280	14.7	77

172	Chemical-looping combustion: Status and research needs. *Proceedings of the Combustion Institute*, **2019**, 37, 4303-4317	5.9	77
171	Catalytic Activity of Ni-Based Oxygen-Carriers for Steam Methane Reforming in Chemical-Looping Processes. *Energy & Fuels*, **2012**, 26, 791-800	4.1	76
170	Using continuous and pulse experiments to compare two promising nickel-based oxygen carriers for use in chemical-looping technologies. *Fuel*, **2008**, 87, 988-1001	7.1	75
169	Reactivity of a NiO/Al2O3 oxygen carrier prepared by impregnation for chemical-looping combustion. *Fuel*, **2010**, 89, 3399-3409	7.1	73
168	On the attrition evaluation of oxygen carriers in Chemical Looping Combustion. *Fuel Processing Technology*, **2016**, 148, 188-197	7.2	73
167	Circulating fluidised bed co-combustion of coal and biomass. *Fuel*, **2004**, 83, 277-286	7.1	71
166	Design and operation of a 50 kWth Chemical Looping Combustion (CLC) unit for solid fuels. *Applied Energy*, **2015**, 157, 295-303	10.7	69
165	Identification of operational regions in the Chemical-Looping with Oxygen Uncoupling (CLOU) process with a Cu-based oxygen carrier. *Fuel*, **2012**, 102, 634-645	7.1	69
164	Development of CuO-based oxygen-carrier materials suitable for Chemical-Looping with Oxygen Uncoupling (CLOU) process. *Energy Procedia*, **2011**, 4, 417-424	2.3	69
163	Use of an Fe-Based Residue from Alumina Production as an Oxygen Carrier in Chemical-Looping Combustion. *Energy & Fuels*, **2012**, 26, 1420-1431	4.1	67
162	Assessment of technological solutions for improving chemical looping combustion of solid fuels with CO2 capture. *Chemical Engineering Journal*, **2013**, 233, 56-69	14.7	66
161	Low-Cost Fe-Based Oxygen Carrier Materials for the iG-CLC Process with Coal. 1. *Industrial & Engineering Chemistry Research*, **2012**, 51, 16216-16229	3.9	66
160	Prompt considerations on the design of Chemical-Looping Combustion of coal from experimental tests. *Fuel*, **2012**, 97, 219-232	7.1	64
159	Fuel reactor modelling in chemical-looping combustion of coal: 2 imulation and optimization. *Chemical Engineering Science*, **2013**, 87, 173-182	4.4	64
158	Characterization and Performance in a Multicycle Test in a Fixed-Bed Reactor of Silica-Supported Copper Oxide as Oxygen Carrier for Chemical-Looping Combustion of Methane. *Energy & Fuels*, **2006**, 20, 148-154	4.1	63
157	Reduction and Oxidation Kinetics of a CaMn0.9Mg0.1O3 Oxygen Carrier for Chemical-Looping Combustion. *Industrial & Engineering Chemistry Research*, **2014**, 53, 87-103	3.9	62
156	Calcium-based sorbents behaviour during sulphation at oxy-fuel fluidised bed combustion conditions. *Fuel*, **2011**, 90, 3100-3108	7.1	61
155	Evaluation of the use of different coals in Chemical Looping Combustion using a bauxite waste as oxygen carrier. *Fuel*, **2013**, 106, 814-826	7.1	60

154	Testing of a highly reactive impregnated Fe2O3/Al2O3 oxygen carrier for a SR□CLC system in a continuous CLC unit. *Fuel Processing Technology*, **2012**, 96, 37-47	7.2	59
153	The fate of sulphur in the Cu-based Chemical Looping with Oxygen Uncoupling (CLOU) Process. *Applied Energy*, **2014**, 113, 1855-1862	10.7	58
152	Performance of a bauxite waste as oxygen-carrier for chemical-looping combustion using coal as fuel. *Fuel Processing Technology*, **2013**, 109, 57-69	7.2	57
151	Theoretical approach on the CLC performance with solid fuels: Optimizing the solids inventory. *Fuel* , **2012**, 97, 536-551	7.1	57
150	Circulating fluidized bed combustion in the turbulent regime: modelling of carbon combustion efficiency and sulphur retention. *Fuel*, **2001**, 80, 1405-1414	7.1	57
149	Coal combustion in a 50kWth Chemical Looping Combustion unit: Seeking operating conditions to maximize CO2 capture and combustion efficiency. *International Journal of Greenhouse Gas Control*, **2016**, 50, 80-92	4.2	56
148	Influence of Limestone Addition in a 10 kWth Chemical-Looping Combustion Unit Operated with Petcoke. *Energy & Fuels*, **2011**, 25, 4818-4828	4.1	55
147	Release of pollutant components in CLC of lignite. *International Journal of Greenhouse Gas Control*, **2014**, 22, 15-24	4.2	54
146	Behaviour of a bauxite waste material as oxygen carrier in a 500Wth CLC unit with coal. *International Journal of Greenhouse Gas Control*, **2013**, 17, 170-182	4.2	54
145	Pollutant emissions in a bubbling fluidized bed combustor working in oxy-fuel operating conditions: Effect of flue gas recirculation. *Applied Energy*, **2013**, 102, 860-867	10.7	54
144	Investigation of Combined Supports for Cu-Based Oxygen Carriers for Chemical-Looping with Oxygen Uncoupling (CLOU). *Energy & Fuels*, **2013**, 27, 3918-3927	4.1	54
143	Evaluation of different oxygen carriers for biomass tar reforming (II): Carbon deposition in experiments with methane and other gases. *Fuel*, **2011**, 90, 1370-1382	7.1	54
142	Determination of Biomass Char Combustion Reactivities for FBC Applications by a Combined Method. *Industrial & Engineering Chemistry Research*, **2001**, 40, 4317-4323	3.9	54
141	Axial voidage profiles in fast fluidized beds. *Powder Technology*, **1994**, 81, 259-268	5.2	54
140	Evaluation of different oxygen carriers for biomass tar reforming (I): Carbon deposition in experiments with toluene. *Fuel*, **2011**, 90, 1049-1060	7.1	52
139	Chemical looping combustion of biomass: CLOU experiments with a Cu-Mn mixed oxide. *Fuel Processing Technology*, **2018**, 172, 179-186	7.2	51
138	Chemical Looping Combustion of different types of biomass in a 0.5 kWth unit. *Fuel*, **2018**, 211, 868-875	7.1	51
137	Characterization study and five-cycle tests in a fixed-bed reactor of titania-supported nickel oxide as oxygen carriers for the chemical-looping combustion of methane. *Environmental Science & Technology*, **2005**, 39, 5796-803	10.3	51

136	Fuel reactor model validation: Assessment of the key parameters affecting the chemical-looping combustion of coal. *International Journal of Greenhouse Gas Control*, **2013**, 19, 541-551	4.2	50
135	Transport velocities of coal and sand particles. *Powder Technology*, **1993**, 77, 61-68	5.2	50
134	Optimum temperature for sulphur retention in fluidised beds working under oxy-fuel combustion conditions. *Fuel*, **2013**, 114, 106-113	7.1	49
133	Evaluation of Manganese Minerals for Chemical Looping Combustion. *Energy & Fuels*, **2015**, 29, 6605-6615	4.1	48
132	Redox kinetics of CaMg0.1Ti0.125Mn0.775O2.9 for Chemical Looping Combustion (CLC) and Chemical Looping with Oxygen Uncoupling (CLOU). *Chemical Engineering Journal*, **2015**, 269, 67-81	14.7	48
131	Calcination of calcium acetate and calcium magnesium acetate: effect of the reacting atmosphere. *Fuel*, **1999**, 78, 583-592	7.1	48
130	Performance of Cu- and Fe-based oxygen carriers in a 500 W th CLC unit for sour gas combustion with high H 2 S content. *International Journal of Greenhouse Gas Control*, **2014**, 28, 168-179	4.2	46
129	Effect of Operating Conditions and H2S Presence on the Performance of CaMg0.1Mn0.9O3 Perovskite Material in Chemical Looping Combustion (CLC). *Energy & Fuels*, **2014**, 28, 1262-1274	4.1	45
128	Conceptual design of a 100 MWth CLC unit for solid fuel combustion. *Applied Energy*, **2015**, 157, 462-474	10.7	44
127	NO and N 2 O emissions in oxy-fuel combustion of coal in a bubbling fluidized bed combustor. *Fuel*, **2015**, 150, 146-153	7.1	44
126	Chemical Looping Combustion of gaseous and solid fuels with manganese-iron mixed oxide as oxygen carrier. *Energy Conversion and Management*, **2018**, 159, 221-231	10.6	44
125	Modeling of the Devolatilization of Nonspherical Wet Pine Wood Particles in Fluidized Beds. *Industrial & Engineering Chemistry Research*, **2002**, 41, 3642-3650	3.9	44
124	Long-lasting Cu-based oxygen carrier material for industrial scale in Chemical Looping Combustion. *International Journal of Greenhouse Gas Control*, **2016**, 52, 120-129	4.2	44
123	Radial gas mixing in a fast fluidized bed. *Powder Technology*, **1997**, 94, 163-171	5.2	43
122	Characterization of a sol gel derived CuO/CuAl2O4 oxygen carrier for chemical looping combustion (CLC) of gaseous fuels: Relevance of gas solid and oxygen uncoupling reactions. *Fuel Processing Technology*, **2015**, 133, 210-219	7.2	42
121	Effect of H2S on the behaviour of an impregnated NiO-based oxygen-carrier for chemical-looping combustion (CLC). *Applied Catalysis B: Environmental*, **2012**, 126, 186-199	21.8	41
120	Characterization of a limestone in a batch fluidized bed reactor for sulfur retention under oxy-fuel operating conditions. *International Journal of Greenhouse Gas Control*, **2011**, 5, 1190-1198	4.2	41
119	Synthesis gas generation by chemical-looping reforming using a Nibased oxygen carrier. *Energy Procedia*, **2009**, 1, 3-10	2.3	41

118	Effect of Fuel Gas Composition in Chemical-Looping Combustion with Ni-Based Oxygen Carriers. 2. Fate of Light Hydrocarbons. *Industrial & Engineering Chemistry Research*, **2009**, 48, 2509-2518	3.9	41
117	Effect of gas composition in Chemical-Looping Combustion with copper-based oxygen carriers: Fate of light hydrocarbons. *International Journal of Greenhouse Gas Control*, **2010**, 4, 13-22	4.2	40
116	Titanium substituted manganese-ferrite as an oxygen carrier with permanent magnetic properties for chemical looping combustion of solid fuels. *Fuel*, **2017**, 195, 38-48	7.1	39
115	Sulphur, nitrogen and mercury emissions from coal combustion with CO2 capture in chemical looping with oxygen uncoupling (CLOU). *International Journal of Greenhouse Gas Control*, **2016**, 46, 28-38	4.2	39
114	In situ gasification Chemical-Looping Combustion of coal using limestone as oxygen carrier precursor and sulphur sorbent. *Chemical Engineering Journal*, **2017**, 310, 226-239	14.7	38
113	Process Comparison for Biomass Combustion: In Situ Gasification-Chemical Looping Combustion (iG-CLC) versus Chemical Looping with Oxygen Uncoupling (CLOU). *Energy Technology*, **2016**, 4, 1130-1136	3.5	38
112	Use of chemically and physically mixed iron and nickel oxides as oxygen carriers for gas combustion in a CLC process. *Fuel Processing Technology*, **2013**, 115, 152-163	7.2	36
111	Performance in a Fixed-Bed Reactor of Titania-Supported Nickel Oxide as Oxygen Carriers for the Chemical-Looping Combustion of Methane in Multicycle Tests. *Industrial & Engineering Chemistry Research*, **2006**, 45, 157-165	3.9	36
110	Use of Chemical-Looping processes for coal combustion with CO2 capture. *Energy Procedia*, **2013**, 37, 540-549	2.3	35
109	Ilmenite as oxygen carrier in a chemical looping combustion system with coal. *Energy Procedia*, **2011**, 4, 362-369	2.3	35
108	On a Highly Reactive Fe2O3/Al2O3 Oxygen Carrier for in Situ Gasification Chemical Looping Combustion. *Energy & Fuels*, **2014**, 28, 7043-7052	4.1	33
107	Manganese Minerals as Oxygen Carriers for Chemical Looping Combustion of Coal. *Industrial & Engineering Chemistry Research*, **2016**, 55, 6539-6546	3.9	33
106	Biomass chemical looping gasification for syngas production using ilmenite as oxygen carrier in a 1.5 kWth unit. *Chemical Engineering Journal*, **2021**, 405, 126679	14.7	33
105	Development of (Mn0.77Fe0.23)2O3 particles as an oxygen carrier for coal combustion with CO2 capture via in-situ gasification chemical looping combustion (iG-CLC) aided by oxygen uncoupling (CLOU). *Fuel Processing Technology*, **2017**, 164, 69-79	7.2	32
104	Performance of a low-cost iron ore as an oxygen carrier for Chemical Looping Combustion of gaseous fuels. *Chemical Engineering Research and Design*, **2015**, 93, 736-746	5.5	32
103	Solid waste management of a chemical-looping combustion plant using Cu-based oxygen carriers. *Environmental Science & Technology*, **2007**, 41, 5882-7	10.3	32
102	Low-Cost Fe-Based Oxygen Carrier Materials for the iG-CLC Process with Coal. 2. *Industrial & Engineering Chemistry Research*, **2012**, 51, 16230-16241	3.9	31
101	Biomass Chemical Looping Gasification of pine wood using a synthetic FeO/AlO oxygen carrier in a continuous unit. *Bioresource Technology*, **2020**, 316, 123908	11	31

100	Syngas/H2 production from bioethanol in a continuous chemical-looping reforming prototype. *Fuel Processing Technology*, **2015**, 137, 24-30	7.2	29
99	Relevance of the catalytic activity on the performance of a NiO/CaAl2O4 oxygen carrier in a CLC process. *Applied Catalysis B: Environmental*, **2014**, 147, 980-987	21.8	29
98	Methods for characterization of sorbents used in fluidized bed boilers?. *Fuel*, **1994**, 73, 355-362	7.1	29
97	Tar abatement for clean syngas production during biomass gasification in a dual fluidized bed. *Fuel Processing Technology*, **2016**, 152, 116-123	7.2	29
96	Optimization of H2 production with CO2 capture by steam reforming of methane integrated with a chemical-looping combustion system. *International Journal of Hydrogen Energy*, **2013**, 38, 11878-11892	6.7	28
95	Mn-based oxygen carriers prepared by impregnation for Chemical Looping Combustion with diverse fuels. *Fuel Processing Technology*, **2018**, 178, 236-250	7.2	28
94	Optimization of hydrogen production with CO2 capture by autothermal chemical-looping reforming using different bioethanol purities. *Applied Energy*, **2016**, 169, 491-498	10.7	27
93	Design and Operation of a Coal-fired 50 kWth Chemical Looping Combustor. *Energy Procedia*, **2014**, 63, 63-72	2.3	27
92	Chemical Looping Combustion of liquid fossil fuels in a 1 kW th unit using a Fe-based oxygen carrier. *Fuel Processing Technology*, **2017**, 160, 47-54	7.2	26
91	Mercury Release and Speciation in Chemical Looping Combustion of Coal. *Energy & Fuels*, **2014**, 28, 2786-2794	4.1	26
90	Sulfur retention in an oxy-fuel bubbling fluidized bed combustor: Effect of coal rank, type of sorbent and O 2 /CO 2 ratio. *Fuel*, **2014**, 137, 384-392	7.1	26
89	Sulphuric acid production via Chemical Looping Combustion of elemental sulphur. *Applied Energy*, **2016**, 178, 736-745	10.7	25
88	Tar abatement in a fixed bed catalytic filter candle during biomass gasification in a dual fluidized bed. *Applied Catalysis B: Environmental*, **2016**, 188, 198-206	21.8	25
87	Steam, dry, and steam-dry chemical looping reforming of diesel fuel in a 1 kW th unit. *Chemical Engineering Journal*, **2017**, 325, 369-377	14.7	24
86	Energy exploitation of acid gas with high H2S content by means of a chemical looping combustion system. *Applied Energy*, **2014**, 136, 242-249	10.7	23
85	Effects of Temperature and Flue Gas Recycle on the SO2 and NOx Emissions in an Oxy-fuel Fluidized Bed Combustor. *Energy Procedia*, **2013**, 37, 1275-1282	2.3	23
84	Modelling of sulfur retention in circulating fluidized bed combustors. *Fuel*, **1996**, 75, 262-270	7.1	23
83	A model for prediction of carbon combustion efficiency in circulating fluidized bed combustors. *Fuel*, **1995**, 74, 1049-1056	7.1	23

82	Reduction and oxidation kinetics of Tierga iron ore for Chemical Looping Combustion with diverse fuels. *Chemical Engineering Journal*, **2019**, 359, 37-46	14.7	23
81	CLOU process performance with a Cu-Mn oxygen carrier in the combustion of different types of coal with CO2 capture. *Fuel*, **2018**, 212, 605-612	7.1	23
80	Comparative Evaluation of the Performance of Coal Combustion in 0.5 and 50 kWth Chemical Looping Combustion Units with Ilmenite, Redmud or Iron Ore as Oxygen Carrier. *Energy Procedia*, **2017**, 114, 285-301	2.3	22
79	Hot Coal-Gas Desulfurization with Calcium-Based Sorbents in a Pressurized Moving-Bed Reactor. *Energy & Fuels*, **2004**, 18, 1543-1554	4.1	22
78	Coal combustion via Chemical Looping assisted by Oxygen Uncoupling with a manganese-iron mixed oxide doped with titanium. *Fuel Processing Technology*, **2020**, 197, 106184	7.2	22
77	Autothermal chemical looping reforming process of different fossil liquid fuels. *International Journal of Hydrogen Energy*, **2017**, 42, 13633-13640	6.7	21
76	Evaluation of Mn-Fe mixed oxide doped with TiO2 for the combustion with CO2 capture by Chemical Looping assisted by Oxygen Uncoupling. *Applied Energy*, **2019**, 237, 822-835	10.7	21
75	Assessment of the improvement of chemical looping combustion of coal by using a manganese ore as oxygen carrier. *Fuel Processing Technology*, **2018**, 176, 107-118	7.2	21
74	Coupled drying and devolatilisation of non-spherical wet pine wood particles in fluidised beds. *Journal of Analytical and Applied Pyrolysis*, **2002**, 65, 173-184	6	21
73	Kinetics of H2S Reaction with Calcined Calcium-Based Sorbents. *Energy & Fuels*, **1998**, 12, 617-625	4.1	21
72	Performance of a low Ni content oxygen carrier for fuel gas combustion in a continuous CLC unit using a CaO/Al2O3 system as support. *International Journal of Greenhouse Gas Control*, **2013**, 14, 209-219	4.2	20
71	Utilization of Calcium Acetate and Calcium Magnesium Acetate for H2S Removal in Coal Gas Cleaning at High Temperatures. *Energy & Fuels*, **1999**, 13, 440-448	4.1	20
70	Assessment of low-cost oxygen carrier in South-western Colombia, and its use in the in-situ gasification chemical looping combustion technology. *Fuel*, **2018**, 218, 417-424	7.1	19
69	Use of Hopcalite-Derived CuMn Mixed Oxide as Oxygen Carrier for Chemical Looping with Oxygen Uncoupling Process. *Energy & Fuels*, **2016**, 30, 5953-5963	4.1	19
68	Bioethanol combustion with CO2 capture in a 1 kWth Chemical Looping Combustion prototype: Suitability of the oxygen carrier. *Chemical Engineering Journal*, **2016**, 283, 1405-1413	14.7	19
67	Chemical-Looping Combustion of Kerosene and Gaseous Fuels with a Natural and a Manufactured MnFe-Based Oxygen Carrier. *Energy & Fuels*, **2018**, 32, 8803-8816	4.1	19
66	Modeling of Limestone Sulfation for Typical Oxy-Fuel Fluidized Bed Combustion Conditions. *Energy & Fuels*, **2013**, 27, 2266-2274	4.1	19
65	Effect of Pressure on the Sulfidation of Calcined Calcium-Based Sorbents. *Energy & Fuels*, **2004**, 18, 761-769	4.1	19

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