

# Pilar Gayan

## List of Publications by Citations

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188  
papers

13,137  
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62  
h-index

109  
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189  
ext. papers

14,489  
ext. citations

6.9  
avg, IF

6.43  
L-index

#	Paper	IF	Citations
188	Progress in Chemical-Looping Combustion and Reforming technologies. <i>Progress in Energy and Combustion Science</i> , <b>2012</b> , 38, 215-282	33.6	1554
187	Selection of Oxygen Carriers for Chemical-Looping Combustion. <i>Energy &amp; Fuels</i> , <b>2004</b> , 18, 371-377	4.1	566
186	Mapping of the range of operational conditions for Cu-, Fe-, and Ni-based oxygen carriers in chemical-looping combustion. <i>Chemical Engineering Science</i> , <b>2007</b> , 62, 533-549	4.4	478
185	Development of Cu-based oxygen carriers for chemical-looping combustion. <i>Fuel</i> , <b>2004</b> , 83, 1749-1757	7.1	307
184	Chemical looping combustion of solid fuels. <i>Progress in Energy and Combustion Science</i> , <b>2018</b> , 65, 6-66	33.6	305
183	Chemical Looping Combustion in a 10 kWth Prototype Using a CuO/Al <sub>2</sub> O <sub>3</sub> Oxygen Carrier: Effect of Operating Conditions on Methane Combustion. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2006</b> , 45, 6075-6080	3.9	242
182	Operation of a 10 kWth chemical-looping combustor during 200 h with a CuO/Al <sub>2</sub> O <sub>3</sub> oxygen carrier. <i>Fuel</i> , <b>2007</b> , 86, 1036-1045	7.1	239
181	Ilmenite Activation during Consecutive Redox Cycles in Chemical-Looping Combustion. <i>Energy &amp; Fuels</i> , <b>2010</b> , 24, 1402-1413	4.1	235
180	Kinetics of redox reactions of ilmenite for chemical-looping combustion. <i>Chemical Engineering Science</i> , <b>2011</b> , 66, 689-702	4.4	220
179	Calcination of calcium-based sorbents at pressure in a broad range of CO <sub>2</sub> concentrations. <i>Chemical Engineering Science</i> , <b>2002</b> , 57, 2381-2393	4.4	211
178	Demonstration of chemical-looping with oxygen uncoupling (CLOU) process in a 1.5kWth continuously operating unit using a Cu-based oxygen-carrier. <i>International Journal of Greenhouse Gas Control</i> , <b>2012</b> , 6, 189-200	4.2	206
177	Reduction Kinetics of Cu-, Ni-, and Fe-Based Oxygen Carriers Using Syngas (CO + H <sub>2</sub> ) for Chemical-Looping Combustion. <i>Energy &amp; Fuels</i> , <b>2007</b> , 21, 1843-1853	4.1	201
176	Reduction and Oxidation Kinetics of a Copper-Based Oxygen Carrier Prepared by Impregnation for Chemical-Looping Combustion. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2004</b> , 43, 8168-8177	3.9	197
175	Effect of Pressure on the Behavior of Copper-, Iron-, and Nickel-Based Oxygen Carriers for Chemical-Looping Combustion. <i>Energy &amp; Fuels</i> , <b>2006</b> , 20, 26-33	4.1	195
174	Impregnated CuO/Al <sub>2</sub> O <sub>3</sub> Oxygen Carriers for Chemical-Looping Combustion: Avoiding Fluidized Bed Agglomeration. <i>Energy &amp; Fuels</i> , <b>2005</b> , 19, 1850-1856	4.1	192
173	Behavior of ilmenite as oxygen carrier in chemical-looping combustion. <i>Fuel Processing Technology</i> , <b>2012</b> , 94, 101-112	7.2	179
172	Development of Cu-based oxygen carriers for Chemical-Looping with Oxygen Uncoupling (CLOU) process. <i>Fuel</i> , <b>2012</b> , 96, 226-238	7.1	168

171	The use of ilmenite as oxygen-carrier in a 500 Wth Chemical-Looping Coal Combustion unit. <i>International Journal of Greenhouse Gas Control</i> , <b>2011</b> , 5, 1630-1642	4.2	159
170	Hydrogen production by chemical-looping reforming in a circulating fluidized bed reactor using Ni-based oxygen carriers. <i>Journal of Power Sources</i> , <b>2009</b> , 192, 27-34	8.9	156
169	Reduction and oxidation kinetics of nickel-based oxygen-carriers for chemical-looping combustion and chemical-looping reforming. <i>Chemical Engineering Journal</i> , <b>2012</b> , 188, 142-154	14.7	142
168	Effect of support on reactivity and selectivity of Ni-based oxygen carriers for chemical-looping combustion. <i>Fuel</i> , <b>2008</b> , 87, 2641-2650	7.1	140
167	Effect of Fe <sub>2</sub> O <sub>3</sub> on the tar content during biomass gasification in a dual fluidized bed. <i>Applied Catalysis B: Environmental</i> , <b>2012</b> , 121-122, 214-222	21.8	131
166	Temperature variations in the oxygen carrier particles during their reduction and oxidation in a chemical-looping combustion system. <i>Chemical Engineering Science</i> , <b>2005</b> , 60, 851-862	4.4	130
165	Synthesis gas generation by chemical-looping reforming in a batch fluidized bed reactor using Ni-based oxygen carriers. <i>Chemical Engineering Journal</i> , <b>2008</b> , 144, 289-298	14.7	127
164	Methane Combustion in a 500 Wth Chemical-Looping Combustion System Using an Impregnated Ni-Based Oxygen Carrier. <i>Energy &amp; Fuels</i> , <b>2009</b> , 23, 130-142	4.1	121
163	Modeling of the chemical-looping combustion of methane using a Cu-based oxygen-carrier. <i>Combustion and Flame</i> , <b>2010</b> , 157, 602-615	5.3	106
162	Syngas combustion in a 500 Wth Chemical-Looping Combustion system using an impregnated Cu-based oxygen carrier. <i>Fuel Processing Technology</i> , <b>2009</b> , 90, 1471-1479	7.2	105
161	Hydrogen production by auto-thermal chemical-looping reforming in a pressurized fluidized bed reactor using Ni-based oxygen carriers. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 151-160	6.7	104
160	Biomass combustion with CO <sub>2</sub> capture by chemical looping with oxygen uncoupling (CLOU). <i>Fuel Processing Technology</i> , <b>2014</b> , 124, 104-114	7.2	102
159	NiO/Al <sub>2</sub> O <sub>3</sub> oxygen carriers for chemical-looping combustion prepared by impregnation and deposition/precipitation methods. <i>Fuel</i> , <b>2009</b> , 88, 1016-1023	7.1	99
158	Fuel reactor modelling in chemical-looping combustion of coal: 1. model formulation. <i>Chemical Engineering Science</i> , <b>2013</b> , 87, 277-293	4.4	98
157	Evaluation of a Spray-Dried CuO/MgAl <sub>2</sub> O <sub>4</sub> Oxygen Carrier for the Chemical Looping with Oxygen Uncoupling Process. <i>Energy &amp; Fuels</i> , <b>2012</b> , 26, 3069-3081	4.1	98
156	Nickel-Copper Oxygen Carriers To Reach Zero CO and H <sub>2</sub> Emissions in Chemical-Looping Combustion. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2006</b> , 45, 2617-2625	3.9	97
155	Negative CO <sub>2</sub> emissions through the use of biofuels in chemical looping technology: A review. <i>Applied Energy</i> , <b>2018</b> , 232, 657-684	10.7	93
154	Hydrogen production with CO <sub>2</sub> 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. <i>Journal of Power Sources</i> , <b>2011</b> , 196, 4370-4381	8.9	87

153	Effect of Fuel Gas Composition in Chemical-Looping Combustion with Ni-Based Oxygen Carriers. 1. Fate of Sulfur. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2009</b> , 48, 2499-2508	3.9	87
152	On the use of a highly reactive iron ore in Chemical Looping Combustion of different coals. <i>Fuel</i> , <b>2014</b> , 126, 239-249	7.1	86
151	Relevance of the coal rank on the performance of the in situ gasification chemical-looping combustion. <i>Chemical Engineering Journal</i> , <b>2012</b> , 195-196, 91-102	14.7	86
150	Optimization of hydrogen production by Chemical-Looping auto-thermal Reforming working with Ni-based oxygen-carriers. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 9663-9672	6.7	86
149	Performance of a highly reactive impregnated Fe <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> oxygen carrier with CH <sub>4</sub> and H <sub>2</sub> S in a 500Wth CLC unit. <i>Fuel</i> , <b>2014</b> , 121, 117-125	7.1	85
148	High temperature behaviour of a CuO/Al <sub>2</sub> O <sub>3</sub> oxygen carrier for chemical-looping combustion. <i>International Journal of Greenhouse Gas Control</i> , <b>2011</b> , 5, 659-667	4.2	85
147	Effect of Support on the Behavior of Cu-Based Oxygen Carriers during Long-Term CLC Operation at Temperatures above 1073 K. <i>Energy &amp; Fuels</i> , <b>2011</b> , 25, 1316-1326	4.1	84
146	Biomass combustion in a CLC system using an iron ore as an oxygen carrier. <i>International Journal of Greenhouse Gas Control</i> , <b>2013</b> , 19, 322-330	4.2	83
145	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). <i>Chemical Engineering Journal</i> , <b>2014</b> , 256, 69-84	14.7	82
144	Effect of gas composition in Chemical-Looping Combustion with copper-based oxygen carriers: Fate of sulphur. <i>International Journal of Greenhouse Gas Control</i> , <b>2010</b> , 4, 762-770	4.2	81
143	Performance of CLOU process in the combustion of different types of coal with CO <sub>2</sub> capture. <i>International Journal of Greenhouse Gas Control</i> , <b>2013</b> , 12, 430-440	4.2	80
142	Syngas combustion in a chemical-looping combustion system using an impregnated Ni-based oxygen carrier. <i>Fuel</i> , <b>2009</b> , 88, 2357-2364	7.1	79
141	Effect of operating conditions in Chemical-Looping Combustion of coal in a 500Wth unit. <i>International Journal of Greenhouse Gas Control</i> , <b>2012</b> , 6, 153-163	4.2	78
140	Kinetic determination of a highly reactive impregnated Fe <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> oxygen carrier for use in gas-fueled Chemical Looping Combustion. <i>Chemical Engineering Journal</i> , <b>2014</b> , 258, 265-280	14.7	77
139	Catalytic Activity of Ni-Based Oxygen-Carriers for Steam Methane Reforming in Chemical-Looping Processes. <i>Energy &amp; Fuels</i> , <b>2012</b> , 26, 791-800	4.1	76
138	Reactivity of a NiO/Al <sub>2</sub> O <sub>3</sub> oxygen carrier prepared by impregnation for chemical-looping combustion. <i>Fuel</i> , <b>2010</b> , 89, 3399-3409	7.1	73
137	On the attrition evaluation of oxygen carriers in Chemical Looping Combustion. <i>Fuel Processing Technology</i> , <b>2016</b> , 148, 188-197	7.2	73
136	Circulating fluidised bed co-combustion of coal and biomass. <i>Fuel</i> , <b>2004</b> , 83, 277-286	7.1	71

135	Design and operation of a 50 kWth Chemical Looping Combustion (CLC) unit for solid fuels. <i>Applied Energy</i> , <b>2015</b> , 157, 295-303	10.7	69
134	Identification of operational regions in the Chemical-Looping with Oxygen Uncoupling (CLOU) process with a Cu-based oxygen carrier. <i>Fuel</i> , <b>2012</b> , 102, 634-645	7.1	69
133	Development of CuO-based oxygen-carrier materials suitable for Chemical-Looping with Oxygen Uncoupling (CLOU) process. <i>Energy Procedia</i> , <b>2011</b> , 4, 417-424	2.3	69
132	Use of an Fe-Based Residue from Alumina Production as an Oxygen Carrier in Chemical-Looping Combustion. <i>Energy &amp; Fuels</i> , <b>2012</b> , 26, 1420-1431	4.1	67
131	Assessment of technological solutions for improving chemical looping combustion of solid fuels with CO <sub>2</sub> capture. <i>Chemical Engineering Journal</i> , <b>2013</b> , 233, 56-69	14.7	66
130	Low-Cost Fe-Based Oxygen Carrier Materials for the iG-CLC Process with Coal. 1. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2012</b> , 51, 16216-16229	3.9	66
129	Prompt considerations on the design of Chemical-Looping Combustion of coal from experimental tests. <i>Fuel</i> , <b>2012</b> , 97, 219-232	7.1	64
128	Fuel reactor modelling in chemical-looping combustion of coal: 2D simulation and optimization. <i>Chemical Engineering Science</i> , <b>2013</b> , 87, 173-182	4.4	64
127	Reduction and Oxidation Kinetics of a CaMn <sub>0.9</sub> Mg <sub>0.1</sub> O <sub>3</sub> Oxygen Carrier for Chemical-Looping Combustion. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2014</b> , 53, 87-103	3.9	62
126	Calcium-based sorbents behaviour during sulphation at oxy-fuel fluidised bed combustion conditions. <i>Fuel</i> , <b>2011</b> , 90, 3100-3108	7.1	61
125	Evaluation of the use of different coals in Chemical Looping Combustion using a bauxite waste as oxygen carrier. <i>Fuel</i> , <b>2013</b> , 106, 814-826	7.1	60
124	Testing of a highly reactive impregnated Fe <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> oxygen carrier for a SR-CLC system in a continuous CLC unit. <i>Fuel Processing Technology</i> , <b>2012</b> , 96, 37-47	7.2	59
123	The fate of sulphur in the Cu-based Chemical Looping with Oxygen Uncoupling (CLOU) Process. <i>Applied Energy</i> , <b>2014</b> , 113, 1855-1862	10.7	58
122	Performance of a bauxite waste as oxygen-carrier for chemical-looping combustion using coal as fuel. <i>Fuel Processing Technology</i> , <b>2013</b> , 109, 57-69	7.2	57
121	Theoretical approach on the CLC performance with solid fuels: Optimizing the solids inventory. <i>Fuel</i> , <b>2012</b> , 97, 536-551	7.1	57
120	Circulating fluidized bed combustion in the turbulent regime: modelling of carbon combustion efficiency and sulphur retention. <i>Fuel</i> , <b>2001</b> , 80, 1405-1414	7.1	57
119	Coal combustion in a 50kWth Chemical Looping Combustion unit: Seeking operating conditions to maximize CO <sub>2</sub> capture and combustion efficiency. <i>International Journal of Greenhouse Gas Control</i> , <b>2016</b> , 50, 80-92	4.2	56
118	Release of pollutant components in CLC of lignite. <i>International Journal of Greenhouse Gas Control</i> , <b>2014</b> , 22, 15-24	4.2	54

117	Behaviour of a bauxite waste material as oxygen carrier in a 500Wth CLC unit with coal. <i>International Journal of Greenhouse Gas Control</i> , <b>2013</b> , 17, 170-182	4.2	54
116	Pollutant emissions in a bubbling fluidized bed combustor working in oxy-fuel operating conditions: Effect of flue gas recirculation. <i>Applied Energy</i> , <b>2013</b> , 102, 860-867	10.7	54
115	Investigation of Combined Supports for Cu-Based Oxygen Carriers for Chemical-Looping with Oxygen Uncoupling (CLOU). <i>Energy &amp; Fuels</i> , <b>2013</b> , 27, 3918-3927	4.1	54
114	Axial voidage profiles in fast fluidized beds. <i>Powder Technology</i> , <b>1994</b> , 81, 259-268	5.2	54
113	Chemical looping combustion of biomass: CLOU experiments with a Cu-Mn mixed oxide. <i>Fuel Processing Technology</i> , <b>2018</b> , 172, 179-186	7.2	51
112	Chemical Looping Combustion of different types of biomass in a 0.5 kWth unit. <i>Fuel</i> , <b>2018</b> , 211, 868-875	7.1	51
111	Fuel reactor model validation: Assessment of the key parameters affecting the chemical-looping combustion of coal. <i>International Journal of Greenhouse Gas Control</i> , <b>2013</b> , 19, 541-551	4.2	50
110	Transport velocities of coal and sand particles. <i>Powder Technology</i> , <b>1993</b> , 77, 61-68	5.2	50
109	Optimum temperature for sulphur retention in fluidised beds working under oxy-fuel combustion conditions. <i>Fuel</i> , <b>2013</b> , 114, 106-113	7.1	49
108	Evaluation of Manganese Minerals for Chemical Looping Combustion. <i>Energy &amp; Fuels</i> , <b>2015</b> , 29, 6605-6615	7.1	48
107	Redox kinetics of $\text{CaMg}_{0.1}\text{Ti}_{0.125}\text{Mn}_{0.775}\text{O}_{2.9}$ for Chemical Looping Combustion (CLC) and Chemical Looping with Oxygen Uncoupling (CLOU). <i>Chemical Engineering Journal</i> , <b>2015</b> , 269, 67-81	14.7	48
106	Performance of Cu- and Fe-based oxygen carriers in a 500 W th CLC unit for sour gas combustion with high H <sub>2</sub> S content. <i>International Journal of Greenhouse Gas Control</i> , <b>2014</b> , 28, 168-179	4.2	46
105	Effect of Operating Conditions and H <sub>2</sub> S Presence on the Performance of $\text{CaMg}_{0.1}\text{Mn}_{0.9}\text{O}_{3\lambda}$ Perovskite Material in Chemical Looping Combustion (CLC). <i>Energy &amp; Fuels</i> , <b>2014</b> , 28, 1262-1274	4.1	45
104	Conceptual design of a 100 MWth CLC unit for solid fuel combustion. <i>Applied Energy</i> , <b>2015</b> , 157, 462-474	10.7	44
103	NO and N <sub>2</sub> O emissions in oxy-fuel combustion of coal in a bubbling fluidized bed combustor. <i>Fuel</i> , <b>2015</b> , 150, 146-153	7.1	44
102	Chemical Looping Combustion of gaseous and solid fuels with manganese-iron mixed oxide as oxygen carrier. <i>Energy Conversion and Management</i> , <b>2018</b> , 159, 221-231	10.6	44
101	Modeling of the Devolatilization of Nonspherical Wet Pine Wood Particles in Fluidized Beds. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2002</b> , 41, 3642-3650	3.9	44
100	Long-lasting Cu-based oxygen carrier material for industrial scale in Chemical Looping Combustion. <i>International Journal of Greenhouse Gas Control</i> , <b>2016</b> , 52, 120-129	4.2	44

99	Radial gas mixing in a fast fluidized bed. <i>Powder Technology</i> , <b>1997</b> , 94, 163-171	5.2	43
98	Effect of H <sub>2</sub> S on the behaviour of an impregnated NiO-based oxygen-carrier for chemical-looping combustion (CLC). <i>Applied Catalysis B: Environmental</i> , <b>2012</b> , 126, 186-199	21.8	41
97	Characterization of a limestone in a batch fluidized bed reactor for sulfur retention under oxy-fuel operating conditions. <i>International Journal of Greenhouse Gas Control</i> , <b>2011</b> , 5, 1190-1198	4.2	41
96	Synthesis gas generation by chemical-looping reforming using a Ni-based oxygen carrier. <i>Energy Procedia</i> , <b>2009</b> , 1, 3-10	2.3	41
95	Effect of Fuel Gas Composition in Chemical-Looping Combustion with Ni-Based Oxygen Carriers. 2. Fate of Light Hydrocarbons. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2009</b> , 48, 2509-2518	3.9	41
94	Effect of gas composition in Chemical-Looping Combustion with copper-based oxygen carriers: Fate of light hydrocarbons. <i>International Journal of Greenhouse Gas Control</i> , <b>2010</b> , 4, 13-22	4.2	40
93	Titanium substituted manganese-ferrite as an oxygen carrier with permanent magnetic properties for chemical looping combustion of solid fuels. <i>Fuel</i> , <b>2017</b> , 195, 38-48	7.1	39
92	Sulphur, nitrogen and mercury emissions from coal combustion with CO <sub>2</sub> capture in chemical looping with oxygen uncoupling (CLOU). <i>International Journal of Greenhouse Gas Control</i> , <b>2016</b> , 46, 28-38	4.2	39
91	In situ gasification Chemical-Looping Combustion of coal using limestone as oxygen carrier precursor and sulphur sorbent. <i>Chemical Engineering Journal</i> , <b>2017</b> , 310, 226-239	14.7	38
90	Process Comparison for Biomass Combustion: In Situ Gasification-Chemical Looping Combustion (iG-CLC) versus Chemical Looping with Oxygen Uncoupling (CLOU). <i>Energy Technology</i> , <b>2016</b> , 4, 1130-1136	3.5	38
89	Use of chemically and physically mixed iron and nickel oxides as oxygen carriers for gas combustion in a CLC process. <i>Fuel Processing Technology</i> , <b>2013</b> , 115, 152-163	7.2	36
88	Use of Chemical-Looping processes for coal combustion with CO <sub>2</sub> capture. <i>Energy Procedia</i> , <b>2013</b> , 37, 540-549	2.3	35
87	Ilmenite as oxygen carrier in a chemical looping combustion system with coal. <i>Energy Procedia</i> , <b>2011</b> , 4, 362-369	2.3	35
86	Manganese Minerals as Oxygen Carriers for Chemical Looping Combustion of Coal. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2016</b> , 55, 6539-6546	3.9	33
85	Development of (Mn <sub>0.77</sub> Fe <sub>0.23</sub> ) <sub>2</sub> O <sub>3</sub> particles as an oxygen carrier for coal combustion with CO <sub>2</sub> capture via in-situ gasification chemical looping combustion (iG-CLC) aided by oxygen uncoupling (CLOU). <i>Fuel Processing Technology</i> , <b>2017</b> , 164, 69-79	7.2	32
84	Performance of a low-cost iron ore as an oxygen carrier for Chemical Looping Combustion of gaseous fuels. <i>Chemical Engineering Research and Design</i> , <b>2015</b> , 93, 736-746	5.5	32
83	Solid waste management of a chemical-looping combustion plant using Cu-based oxygen carriers. <i>Environmental Science &amp; Technology</i> , <b>2007</b> , 41, 5882-7	10.3	32
82	Low-Cost Fe-Based Oxygen Carrier Materials for the iG-CLC Process with Coal. 2. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2012</b> , 51, 16230-16241	3.9	31

81	Comparison of Mechanistic Models for the Sulfation Reaction in a Broad Range of Particle Sizes of Sorbents. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>1996</b> , 35, 2190-2197	3.9	30
80	Syngas/H <sub>2</sub> production from bioethanol in a continuous chemical-looping reforming prototype. <i>Fuel Processing Technology</i> , <b>2015</b> , 137, 24-30	7.2	29
79	Relevance of the catalytic activity on the performance of a NiO/CaAl <sub>2</sub> O <sub>4</sub> oxygen carrier in a CLC process. <i>Applied Catalysis B: Environmental</i> , <b>2014</b> , 147, 980-987	21.8	29
78	Combustion of Wood Chips in a CFBC. Modeling and Validation. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2003</b> , 42, 987-999	3.9	29
77	Tar abatement for clean syngas production during biomass gasification in a dual fluidized bed. <i>Fuel Processing Technology</i> , <b>2016</b> , 152, 116-123	7.2	29
76	Optimization of H <sub>2</sub> production with CO <sub>2</sub> capture by steam reforming of methane integrated with a chemical-looping combustion system. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 11878-11892	6.7	28
75	Mn-based oxygen carriers prepared by impregnation for Chemical Looping Combustion with diverse fuels. <i>Fuel Processing Technology</i> , <b>2018</b> , 178, 236-250	7.2	28
74	Optimization of hydrogen production with CO <sub>2</sub> capture by autothermal chemical-looping reforming using different bioethanol purities. <i>Applied Energy</i> , <b>2016</b> , 169, 491-498	10.7	27
73	Design and Operation of a Coal-fired 50 kWth Chemical Looping Combustor. <i>Energy Procedia</i> , <b>2014</b> , 63, 63-72	2.3	27
72	Chemical Looping Combustion of liquid fossil fuels in a 1 kW th unit using a Fe-based oxygen carrier. <i>Fuel Processing Technology</i> , <b>2017</b> , 160, 47-54	7.2	26
71	Mercury Release and Speciation in Chemical Looping Combustion of Coal. <i>Energy &amp; Fuels</i> , <b>2014</b> , 28, 2786-2794	4.1	26
70	Sulfur retention in an oxy-fuel bubbling fluidized bed combustor: Effect of coal rank, type of sorbent and O <sub>2</sub> /CO <sub>2</sub> ratio. <i>Fuel</i> , <b>2014</b> , 137, 384-392	7.1	26
69	Sulphuric acid production via Chemical Looping Combustion of elemental sulphur. <i>Applied Energy</i> , <b>2016</b> , 178, 736-745	10.7	25
68	Tar abatement in a fixed bed catalytic filter candle during biomass gasification in a dual fluidized bed. <i>Applied Catalysis B: Environmental</i> , <b>2016</b> , 188, 198-206	21.8	25
67	Steam, dry, and steam-dry chemical looping reforming of diesel fuel in a 1 kW th unit. <i>Chemical Engineering Journal</i> , <b>2017</b> , 325, 369-377	14.7	24
66	Simultaneous Calcination and Sulfidation of Calcium-Based Sorbents. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2004</b> , 43, 3261-3269	3.9	24
65	Energy exploitation of acid gas with high H <sub>2</sub> S content by means of a chemical looping combustion system. <i>Applied Energy</i> , <b>2014</b> , 136, 242-249	10.7	23
64	Effects of Temperature and Flue Gas Recycle on the SO <sub>2</sub> and NO <sub>x</sub> Emissions in an Oxy-fuel Fluidized Bed Combustor. <i>Energy Procedia</i> , <b>2013</b> , 37, 1275-1282	2.3	23

63	Modelling of sulfur retention in circulating fluidized bed combustors. <i>Fuel</i> , <b>1996</b> , 75, 262-270	7.1	23
62	A model for prediction of carbon combustion efficiency in circulating fluidized bed combustors. <i>Fuel</i> , <b>1995</b> , 74, 1049-1056	7.1	23
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59	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. <i>Energy Procedia</i> , <b>2017</b> , 114, 285-301	2.3	22
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46	Effect of gas impurities on the behavior of Ni-based oxygen carriers on chemical-looping combustion. <i>Energy Procedia</i> , <b>2009</b> , 1, 11-18	2.3	18

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