J Carlos Abanades

List of Publications by Year
in descending order

161	12,878	57	111
papers	citations	h-index	g-index
		25014	23514

161	161	161	6117
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Carbon capture and storage update. Energy and Environmental Science, 2014, 7, 130-189.	15.6	1,765
2	Conversion Limits in the Reaction of CO2with Lime. Energy & Fuels, 2003, 17, 308-315.	2.5	650
3	CO2Capture Capacity of CaO in Long Series of Carbonation/Calcination Cycles. Industrial & Engineering Chemistry Research, 2006, 45, 8846-8851.	1.8	641
4	The maximum capture efficiency of CO2 using a carbonation/calcination cycle of CaO/CaCO3. Chemical Engineering Journal, 2002, 90, 303-306.	6.6	456
5	Fluidized Bed Combustion Systems Integrating CO2Capture with CaO. Environmental Science & Technology, 2005, 39, 2861-2866.	4.6	383
6	Emerging CO2 capture systems. International Journal of Greenhouse Gas Control, 2015, 40, 126-166.	2.3	352
7	Determination of the Critical Product Layer Thickness in the Reaction of CaO with CO2. Industrial & Engineering Chemistry Research, 2005, 44, 5608-5615.	1.8	337
8	Capture of CO2 from combustion gases in a fluidized bed of CaO. AICHE Journal, 2004, 50, 1614-1622.	1.8	328
9	Sorbent Cost and Performance in CO2Capture Systems. Industrial & Engineering Chemistry Research, 2004, 43, 3462-3466.	1.8	290
10	Demonstration of steady state CO2 capture in a 1.7MWth calcium looping pilot. International Journal of Greenhouse Gas Control, 2013, 18, 237-245.	2.3	279
11	Enhancement of CaO for CO2 capture in an FBC environment. Chemical Engineering Journal, 2003, 96, 187-195.	6.6	257
12	Cost Structure of a Postcombustion CO2Capture System Using CaO. Environmental Science & Technology, 2007, 41, 5523-5527.	4.6	227
13	On the climate change mitigation potential of CO₂ conversion to fuels. Energy and Environmental Science, 2017, 10, 2491-2499.	15.6	225
14	Application of the random pore model to the carbonation cyclic reaction. AICHE Journal, 2009, 55, 1246-1255.	1.8	199
15	Economics of CO2Capture Using the Calcium Cycle with a Pressurized Fluidized Bed Combustor. Energy & Fuels, 2007, 21, 920-926.	2.5	184
16	Oxyfuel carbonation/calcination cycle for low cost CO2 capture in existing power plants. Energy Conversion and Management, 2008, 49, 2809-2814.	4.4	184
17	Pore-Size and Shape Effects on the Recarbonation Performance of Calcium Oxide Submitted to Repeated Calcination/Recarbonation Cycles. Energy & Fuels, 2005, 19, 270-278.	2.5	177
18	Experimental Validation of the Calcium Looping CO₂ Capture Process with Two Circulating Fluidized Bed Carbonator Reactors. Industrial & Engineering Chemistry Research, 2011, 50, 9685-9695.	1.8	155

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19	Reactivity of highly cycled particles of CaO in a carbonation/calcination loop. Chemical Engineering Journal, 2008, 137, 561-567.	6.6	152
20	New CO₂ Capture Process for Hydrogen Production Combining Ca and Cu Chemical Loops. Environmental Science & Technology, 2010, 44, 6901-6904.	4.6	148
21	Experimental investigation of a circulating fluidizedâ€bed reactor to capture CO₂ with CaO. AICHE Journal, 2011, 57, 1356-1366.	1.8	141
22	Kinetics of the CaO/Ca(OH)₂ Hydration/Dehydration Reaction for Thermochemical Energy Storage Applications. Industrial & Engineering Chemistry Research, 2014, 53, 12594-12601.	1.8	133
23	Clean and efficient use of petroleum coke for combustion and power generation. Fuel, 2004, 83, 1341-1348.	3.4	129
24	Kinetics of Calcination of Partially Carbonated Particles in a Ca-Looping System for CO₂ Capture. Energy & Fuels, 2012, 26, 1432-1440.	2.5	126
25	Carbon dioxide capture from combustion flue gases with a calcium oxide chemical loop. Experimental results and process development. International Journal of Greenhouse Gas Control, 2010, 4, 167-173.	2.3	124
26	Heat requirements in a calciner of CaCO3 integrated in a CO2 capture system using CaO. Chemical Engineering Journal, 2008, 138, 148-154.	6.6	120
27	Conceptual design of a hydrogen production process from natural gas with CO2 capture using a Caâ€"Cu chemical loop. International Journal of Greenhouse Gas Control, 2012, 6, 126-141.	2.3	114
28	Modelling of a fluidized bed carbonator reactor to capture CO2 from a combustion flue gas. Chemical Engineering Science, 2009, 64, 883-891.	1.9	107
29	CO₂ Looping Cycle Performance of a High-Purity Limestone after Thermal Activation/Doping. Energy & Fuels, 2008, 22, 3258-3264.	2.5	100
30	An analysis of the effect of carbonation conditions on CaO deactivation curves. Chemical Engineering Journal, 2011, 167, 255-261.	6.6	95
31	CO₂ Capture from Cement Plants Using Oxyfired Precalcination and/or Calcium Looping. Environmental Science & Technology, 2012, 46, 2460-2466.	4.6	94
32	Post-combustion calcium looping process with a highly stable sorbent activity by recarbonation. Energy and Environmental Science, 2012, 5, 7353.	15.6	92
33	Lime enhanced gasification of solid fuels: Examination of a process for simultaneous hydrogen production and CO2 capture. Fuel, 2008, 87, 1678-1686.	3.4	91
34	Average activity of CaO particles in a calcium looping system. Chemical Engineering Journal, 2010, 156, 388-394.	6.6	90
35	Modeling of sorption enhanced steam methane reforming in an adiabatic fixed bed reactor. Chemical Engineering Science, 2012, 84, 1-11.	1.9	86
36	Sulfation of CaO Particles in a Carbonation/Calcination Loop to Capture CO₂. Industrial & Engineering Chemistry Research, 2008, 47, 1630-1635.	1.8	84

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37	Process design of a hydrogen production plant from natural gas with CO2 capture based on a novel Ca/Cu chemical loop. Applied Energy, 2014, 114, 192-208.	5.1	84
38	Conceptual process design of a CaO/Ca(OH) 2 thermochemical energy storage system using fluidized bed reactors. Applied Thermal Engineering, 2014, 73, 1087-1094.	3.0	82
39	Experimental investigation and model validation of a CaO/Ca(OH)2 fluidized bed reactor for thermochemical energy storage applications. Chemical Engineering Journal, 2017, 313, 1194-1205.	6.6	81
40	Comparison of CaO-Based Synthetic CO₂Sorbents under Realistic Calcination Conditions. Energy & Fuels, 2007, 21, 3560-3562.	2.5	80
41	Effect of sorbent hydration on the average activity of CaO in a Ca-looping system. Chemical Engineering Journal, 2010, 163, 324-330.	6.6	78
42	Integration of a Ca looping system for CO₂ capture in existing power plants. AIChE Journal, 2011, 57, 2599-2607.	1.8	78
43	Postcombustion CO2 capture with CaO. Status of the technology and next steps towards large scale demonstration. Energy Procedia, 2011, 4, 852-859.	1.8	78
44	Enhancement of a CaO/Ca(OH)2 based material for thermochemical energy storage. Solar Energy, 2016, 135, 800-809.	2.9	73
45	Sorbent attrition in a carbonation/calcination pilot plant for capturing CO2 from flue gases. Fuel, 2010, 89, 2918-2924.	3.4	71
46	The Effect of Steam on the Fast Carbonation Reaction Rates of CaO. Industrial & Engineering Chemistry Research, 2012, 51, 2478-2482.	1.8	71
47	Process for Capturing CO₂ Arising from the Calcination of the CaCO₃ Used in Cement Manufacture. Environmental Science & Technology, 2008, 42, 6980-6984.	4.6	69
48	Comparison of experimental results from three dual fluidized bed test facilities capturing CO2 with CaO. Energy Procedia, 2011, 4, 393-401.	1.8	69
49	Structural changes in zinc ferrites as regenerable sorbents for hot coal gas desulfurization. Solid State Ionics, 2000, 138, 51-62.	1.3	68
50	Modelling the continuous calcination of CaCO3 in a Ca-looping system. Chemical Engineering Journal, 2013, 215-216, 174-181.	6.6	68
51	Modeling of sorption enhanced steam methane reformingâ€”Part II: Simulation within a novel Ca/Cu chemical loop process for hydrogen production. Chemical Engineering Science, 2012, 84, 12-20.	1.9	65
52	Modeling of the Deactivation of CaO in a Carbonate Loop at High Temperatures of Calcination. Industrial & Engineering Chemistry Research, 2008, 47, 9256-9262.	1.8	64
53	Determination of Biomass Char Combustion Reactivities for FBC Applications by a Combined Method. Industrial & Engineering Chemistry Research, 2001, 40, 4317-4323.	1.8	62
54	Evaluation of CO₂ Carrying Capacity of Reactivated CaO by Hydration. Energy & Fuels, 2011, 25, 1294-1301.	2.5	62

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55	Undesired effects in the determination of CO2 carrying capacities of CaO during TG testing. Fuel, 2014, 127, 52-61.	3.4	62
56	Calcium looping CO₂ capture system for back-up power plants. Energy and Environmental Science, 2017, 10, 1994-2004.	15.6	62
57	Determination of CaO Carbonation Kinetics under Recarbonation Conditions. Energy & Fuels, 2014, 28, 4033-4042.	2.5	58
58	Effect of the Carbonation Temperature on the CO₂ Carrying Capacity of CaO. Industrial & Engineering Chemistry Research, 2018, 57, 12595-12599.	1.8	56
59	Testing postcombustion CO2 capture with CaO in a 1.7 MWt pilot facility. Energy Procedia, 2013, 37, 1-8.	1.8	55
60	Conceptual design of a three fluidised beds combustion system capturing CO2 with CaO. International Journal of Greenhouse Gas Control, 2011, 5, 498-504.	2.3	53
61	CO₂ Capture by Calcium Looping at Relevant Conditions for Cement Plants: Experimental Testing in a 30 kW_{th} Pilot Plant. Industrial & Engineering Chemistry Research, 2017, 56, 2634-2640.	1.8	53
62	Capturing CO2 from combustion flue gases with a carbonation calcination loop. Experimental results and process development. Energy Procedia, 2009, 1, 1147-1154.	1.8	52
63	Calcium looping for CO2 capture: sorbent enhancement through doping. Energy Procedia, 2011, 4, 402-409.	1.8	48
64	Analysis of a double calcium loop process configuration for CO2 capture in cement plants. Journal of Cleaner Production, 2016, 117, 110-121.	4.6	47
65	CO2 capture from the calcination of CaCO3 using iron oxide asÂheatÂcarrier. Journal of Cleaner Production, 2016, 112, 1211-1217.	4.6	46
66	Continuous CaO/Ca(OH)₂ Fluidized Bed Reactor for Energy Storage: First Experimental Results and Reactor Model Validation. Industrial & Engineering Chemistry Research, 2017, 56, 844-852.	1.8	46
67	Biomass combustion with in situ CO 2 capture by CaO in a 300 kW th circulating fluidized bed facility. International Journal of Greenhouse Gas Control, 2014, 29, 142-152.	2.3	44
68	Calcium looping performance under extreme oxy-fuel combustion conditions in the calciner. Fuel, 2018, 222, 711-717.	3.4	44
69	Novel Capture Processes. Oil and Gas Science and Technology, 2005, 60, 497-508.	1.4	42
70	Special Issue commemorating the 10th year anniversary of the publication of the Intergovernmental Panel on Climate Change Special Report on CO2 Capture and Storage. International Journal of Greenhouse Gas Control, 2015, 40, 1-5.	2.3	42
71	Composite Material for Thermochemical Energy Storage Using CaO/Ca(OH)₂. Industrial & Engineering Chemistry Research, 2015, 54, 9314-9327.	1.8	41
72	Experimental testing of a sorbent reactivation process in La Pereda 1.7 MWth calcium looping pilot plant. International Journal of Greenhouse Gas Control, 2016, 50, 14-22.	2.3	40

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73	Conceptual design of a Ni-based chemical looping combustion process using fixed-beds. Applied Energy, 2014, 135, 309-319.	5.1	39
74	Integrated combined cycle from natural gas with CO₂ capture using a Caâ€“Cu chemical loop. AIChE Journal, 2013, 59, 2780-2794.	1.8	38
75	Reduction Kinetics of a High Load Cu-based Pellet Suitable for Ca/Cu Chemical Loops. Industrial & Engineering Chemistry Research, 2013, 52, 1481-1490.	1.8	35
76	Integration of a Ca-looping system for CO2 capture in an existing power plant. Energy Procedia, 2011, 4, 1699-1706.	1.8	34
77	Overview of the Caâ€“Cu looping process for hydrogen production and/or power generation. Current Opinion in Chemical Engineering, 2017, 17, 1-8.	3.8	34
78	Optimized design and operation strategy of a Ca Cu chemical looping process for hydrogen production. Chemical Engineering Science, 2017, 166, 144-160.	1.9	34
79	Design of a Novel Fluidized Bed Reactor To Enhance Sorbent Performance in CO₂ Capture Systems Using CaO. Industrial & Engineering Chemistry Research, 2014, 53, 10059-10071.	1.8	33
80	Investigation of a Fixed-Bed Reactor for the Calcination of CaCO₃ by the Simultaneous Reduction of CuO with a Fuel Gas. Industrial & Engineering Chemistry Research, 2016, 55, 5128-5132.	1.8	33
81	Conceptual design of a Caâ€“Cu chemical looping process for hydrogen production in integrated steelworks. International Journal of Hydrogen Energy, 2017, 42, 11023-11037.	3.8	33
82	Methods for characterization of sorbents used in fluidized bed boilersâ˜†. Fuel, 1994, 73, 355-362.	3.4	32
83	Integration of a fluidised bed Caâ€“Cu chemical looping process in a steel mill. Energy, 2018, 163, 570-584.	4.5	32
84	Integration of Ca-Looping Systems for CO2 Capture in Cement Plants. Energy Procedia, 2017, 114, 6206-6214.	1.8	31
85	A calibration procedure to obtain solid concentrations from digital images of bulk powders. Powder Technology, 2001, 114, 125-128.	2.1	30
86	Model for Self-Reactivation of Highly Sintered CaO Particles during CO₂ Capture Looping Cycles. Energy & Fuels, 2011, 25, 1926-1930.	2.5	30
87	The impact of calcium sulfate and inert solids accumulation in post-combustion calcium looping systems. Fuel, 2013, 109, 184-190.	3.4	30
88	An air CO₂ capture system based on the passive carbonation of large Ca(OH)₂ structures. Sustainable Energy and Fuels, 2020, 4, 3409-3417.	2.5	30
89	Model of mixingâ€"segregation for straw/sand mixtures in fluidized beds. Powder Technology, 1988, 56, 149-155.	2.1	29
90	Modeling of Cu oxidation in adiabatic fixed-bed reactor with N2 recycling in a Ca/Cu chemical loop. Chemical Engineering Journal, 2013, 232, 442-452.	6.6	29

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91	Study of a Cu-CuO chemical loop for the calcination of CaCO3 in a fixed bed reactor. Chemical Engineering Journal, 2017, 325, 208-220.	6.6	29
92	Minimum fluidization velocities of fluidized-bed coal-combustion solids. Powder Technology, 1991, 67, 113-119.	2.1	28
93	Effect of Partial Carbonation on the Cyclic CaO Carbonation Reaction. Industrial & Engineering Chemistry Research, 2009, 48, 9090-9096.	1.8	28
94	Analysis of a Process for Capturing the CO₂ Resulting from the Precalcination of Limestone in a Cement Plant. Industrial & Engineering Chemistry Research, 2011, 50, 2126-2132.	1.8	28
95	Oxy-fired fluidized bed combustors with a flexible power output using circulating solids for thermal energy storage. Applied Energy, 2014, 132, 127-136.	5.1	28
96	Oxidative dehydrogenation of butane in an interconnected fluidized-bed reactor. AICHE Journal, 2004, 50, 1510-1522.	1.8	27
97	Narrow fluidised beds arranged to exchange heat between a combustion chamber and a <mml:math altimg="si13.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsev. Chemical Engi	1.9	27
98	Sulfation rates of cycled CaO particles in the carbonator of a Caâ€looping cycle for postcombustion CO₂ capture. AICHE Journal, 2012, 58, 2262-2269.	1.8	27
99	A sequential approach for the economic evaluation of new CO2 capture technologies for power plants. International Journal of Greenhouse Gas Control, 2019, 84, 219-231.	2.3	27
100	Modeling of Cu oxidation in an adiabatic fixed-bed reactor with N2 recycling. Applied Energy, 2014, 113, 1945-1951.	5.1	26
101	CO2 capture in existing power plants using second generation Ca-Looping systems firing biomass in the calciner. Journal of Cleaner Production, 2018, 187, 638-649.	4.6	26
102	Residual activity of sorbent particles with a long residence time in a CFBC. AICHE Journal, 2000, 46, 1888-1893.	1.8	24
103	Fluidization velocities of sand/straw binary mixtures. Powder Technology, 1987, 52, 1-6.	2.1	23
104	Biomass Combustion with in Situ CO2Capture by CaO. II. Experimental Results. Industrial & Engineering Chemistry Research, 2011, 50, 6982-6989.	1.8	23
105	Evolution of the CO2 carrying capacity of CaO particles in a large calcium looping pilot plant. International Journal of Greenhouse Gas Control, 2017, 62, 69-75.	2.3	23
106	Recent progress of the Ca-Cu technology for decarbonisation of power plants and carbon intensive industries. International Journal of Greenhouse Gas Control, 2019, 85, 71-85.	2.3	22
107	Measuring attrition properties of calcium looping materials in a 30â€kW pilot plant. Powder Technology, 2018, 336, 273-281.	2.1	21
108	Modeling the solids circulation rates and solids inventories of an interconnected circulating fluidized bed reactor system for CO2 capture by calcium looping. Chemical Engineering Journal, 2012, 198-199, 228-235.	6.6	20

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109	Carbonation of Fine CaO Particles in a Drop Tube Reactor. Industrial & Engineering Chemistry Research, 2018, 57, 13372-13380.	1.8	20
110	In-Situ Capture of CO2 in a Fluidized Bed Combustor. , 2003, , 133.		19
111	Precalcination of CaCO₃ as a Method to Stabilize CaO Performance for CO₂ Capture from Combustion Gases. Energy & Fuels, 2011, 25, 5521-5527.	2.5	19
112	Experimental validation of in situ CO2 capture with CaO during the low temperature combustion of biomass in a fluidized bed reactor. International Journal of Greenhouse Gas Control, 2011, 5, 512-520.	2.3	19
113	Biomass Combustion with in Situ CO₂ Capture with CaO. I. Process Description and Economics. Industrial & Engineering Chemistry Research, 2011, 50, 6972-6981.	1.8	18
114	Process and Cost Analysis of a Biomass Power Plant with in Situ Calcium Looping CO₂ Capture Process. Industrial & Engineering Chemistry Research, 2014, 53, 10721-10733.	1.8	18
115	Operating Experience in la Pereda 1.7 MWth Calcium Looping Pilot. Energy Procedia, 2017, 114, 149-157.	1.8	18
116	Progress of Sulfation in Highly Sulfated Particles of Lime. Industrial & Engineering Chemistry Research, 2003, 42, 1840-1844.	1.8	17
117	Sorption enhanced reforming of methane combined with an iron oxide chemical loop for the production of hydrogen with CO2 capture: Conceptual design and operation strategy. Applied Thermal Engineering, 2017, 125, 811-822.	3.0	17
118	Investigation of SO₂ Capture in a Circulating Fluidized Bed Carbonator of a Ca Looping Cycle. Industrial & Engineering Chemistry Research, 2013, 52, 2700-2706.	1.8	16
119	The use of two different models to describe the axial mixing of solids in fluidised beds. Chemical Engineering Science, 2002, 57, 2791-2798.	1.9	15
120	Analysis of a process to capture the CO2 resulting from the pre-calcination of the limestone feed to a cement plant. Energy Procedia, 2009, 1, 141-148.	1.8	15
121	Calcination kinetics of cement raw meals under various CO₂ concentrations. Reaction Chemistry and Engineering, 2019, 4, 2129-2140.	1.9	15
122	Modeling of lignite combustion in atmospheric fluidized bed combustors. 1. Selection of submodels and sensitivity analysis. Industrial & Engineering Chemistry Research, 1992, 31, 2286-2296.	1.8	14
123	CO₂ Carrying Capacities of Cement Raw Meals in Calcium Looping Systems. Energy & Fuels, 2017, 31, 13955-13962.	2.5	14
124	A mathematical model for segregation of limestone-coal mixtures in slugging fluidised beds. Chemical Engineering Science, 1994, 49, 3943-3953.	1.9	13
125	Modeling the Axial and Lateral Mixing of Solids in Fluidized Beds. Industrial & Engineering Chemistry Research, 2001, 40, 5656-5665.	1.8	13
126	Sulfation Rates of Particles in Calcium Looping Reactors. Chemical Engineering and Technology, 2014, 37, 15-19.	0.9	13

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127	Determination of coal combustion reactivities by burnout time measurements in a batch fluidized bed. Fuel, 1994, 73, 287-293.	3.4	12
128	Novel Combustion Cycles Incorporating Capture of CO2 with CaO. , 2003, , 181-186.		12
129	Study of the calcination of CaCO3 by means of a Cu/CuO chemical loop using methane as fuel gas. Catalysis Today, 2019, 333, 176-181.	2.2	12
130	Integrated Calcium Looping System with Circulating Fluidized Bed Reactors for Low CO2 Emission Cement Plants. International Journal of Greenhouse Gas Control, 2022, 114, 103555.	2.3	12
131	Sulfation Performance of CaO Purges Derived from Calcium Looping CO₂ Capture Systems. Energy & Fuels, 2014, 28, 1325-1330.	2.5	11
132	Calcium Looping with Enhanced Sorbent Performance: Experimental Testing in A Large Pilot Plant. Energy Procedia, 2014, 63, 2060-2069.	1.8	11
133	Determination of the solid concentration in a binary mixture from pressure drop measurements. Powder Technology, 2018, 338, 608-613.	2.1	11
134	Kinetic Study of Belite Formation in Cement Raw Meals Used in the Calcium Looping CO₂ Capture Process. Industrial & Engineering Chemistry Research, 2019, 58, 5445-5454.	1.8	11
135	Design of a hydrogen production process for power generation based on a Ca-Cu chemical loop. Energy Procedia, 2013, 37, 626-634.	1.8	10
136	Advanced Packed-Bed Ca-Cu Looping Process for the CO2 Capture From Steel Mill Off-Gases. Frontiers in Energy Research, 2020, 8, .	1.2	10
137	Thermal Integration of a Flexible Calcium Looping CO₂ Capture System in an Existing Back-Up Coal Power Plant. ACS Omega, 2020, 5, 4844-4852.	1.6	10
138	Capture of CO2 during low temperature biomass combustion in a fluidized bed using CaO. Process description, experimental results and economics. Energy Procedia, 2011, 4, 795-802.	1.8	9
139	Modelling a Calciner with High Inlet Oxygen Concentration for a Calcium Looping Process. Energy Procedia, 2017, 114, 242-249.	1.8	9
140	Investigation of the dynamic evolution of the CO2 carrying capacity of solids with time in La Pereda 1.7 MWth calcium looping pilot plant. International Journal of Greenhouse Gas Control, 2020, 92, 102856.	2.3	9
141	A novel air reactor concept for chemical looping combustion systems operated at high pressure. Chemical Engineering Journal, 2020, 390, 124507.	6.6	9
142	Experimental testing and model validation of the calcination of calcium carbonate by the reduction of copper oxide with CH4. Chemical Engineering Science, 2019, 193, 120-132.	1.9	8
143	Carbonation Kinetics of Ca(OH)₂ Under Conditions of Entrained Reactors to Capture CO₂. Industrial & Engineering Chemistry Research, 2022, 61, 3272-3277.	1.8	8
144	Proof of concept of the CaO/Ca(OH)2 reaction in a continuous heat-exchanger BFB reactor for thermochemical heat storage in CSP plants. AIP Conference Proceedings, 2017, , .	0.3	7

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145	Investigation of the solid flow between two fluidized beds connected by an orifice. Chemical Engineering Science, 2004, 59, 5869-5872.	1.9	6
146	Characterization of a Marl-Type Cement Raw Meal as CO2 Sorbent for Calcium Looping. ACS Omega, 2018, 3, 15229-15234.	1.6	6
147	Carbon efficiency in atmospheric fluidized bed combustion of lignites. Fuel, 1992, 71, 417-424.	3.4	5
148	Effect of formulation of steady-state heat balance for char particles on AFBC modelling. Fuel, 1993, 72, 1335-1342.	3.4	5
149	Investigation of the Segregation of Binary Mixtures with Iron-Based Particles in a Bubbling Fluidized Bed. ACS Omega, 2019, 4, 9065-9073.	1.6	5
150	Modeling of lignite combustion in atmospheric fluidized bed combustors. 2. Model validation and simulation. Industrial & Engineering Chemistry Research, 1992, 31, 2296-2303.	1.8	4
151	A Simulation Study for Fluidized Bed Combustion of Petroleum Coke With CO2 Capture. , 2003, , 603.		4
152	Calcium looping for CO 2 capture in combustion systems. , 2013, , 931-970.		4
153	Reactor Design for Sorption-Enhanced Reforming Using Ca Cu Chemical Loops. Advances in Chemical Engineering, 2017, 51, 207-260.	0.5	4
154	Screening CO2 Capture Test for Cement Plants Using a Lab Scale Calcium Looping Pilot Facility. Energy Procedia, 2017, 114, 53-56.	1.8	3
155	An extended version of the countercurrent backmixing model suitable for solid mixing in two-dimensional fluidised beds. Powder Technology, 2001, 120, 113-119.	2.1	2
156	Postcombustion Capture of CO2 with CaO in a Circulating Fluidized Bed Carbonator. , 2009, , 549-554.		2
157	Calcium looping reactor design for fluidized-bed systems. , 2015, , 107-138.		1
158	Capture of CO2 with CaO in a pilot fluidized bed carbonator experimental results and reactor model. , 2005, , 1107-1113.		1
159	Modeling of Carbon Combustion Efficiency in Circulating Fluidized Bed Combustors. 2. Model Validation and Simulation. Industrial & Engineering Chemistry Research, 1995, 34, 3139-3145.	1.8	0
160	NOVEL CO2 CONTROL METHOD BY MEANS OF CO2 CHEMICAL LOOPING. International Journal of Energy for A Clean Environment, 2008, 9, 91-101.	0.6	0
161	Experimental Investigation of Sulfation Phenomena in Calcium Looping Systems Integrated in Cement Plants. Industrial & Engineering Chemistry Research, 2022, 61, 4561-4566.	1.8	0