

Wenqiang Liu

List of Publications by Year in descending order

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63
papers

3,690
citations

117625

34
h-index

128289

60
g-index

63
all docs

63
docs citations

63
times ranked

1544
citing authors

#	ARTICLE	IF	CITATIONS
1	Lithium-based ceramics in nonsilicates for CO ₂ capture: current status and new trends. <i>Journal of Materials Chemistry A</i> , 2022, 10, 1706-1725.	10.3	14
2	A review on granulation of CaO-based sorbent for carbon dioxide capture. <i>Chemical Engineering Journal</i> , 2022, 446, 136880.	12.7	10
3	Mineral-derived Li ₄ SiO ₄ -based adsorbent for post-combustion CO ₂ capture: An experimental and kinetic investigation. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 5339-5346.	3.9	9
4	Novel synthesis of tailored Li ₄ SiO ₄ -based microspheres for ultrafast CO ₂ adsorption. <i>Fuel Processing Technology</i> , 2021, 213, 106675.	7.2	9
5	High-temperature CO ₂ adsorption by one-step fabricated Nd-doped Li ₄ SiO ₄ pellets. <i>Chemical Engineering Journal</i> , 2021, 410, 128346.	12.7	21
6	CaO/Ca(OH) ₂ heat storage performance of hollow nanostructured CaO-based material from Ca-looping cycles for CO ₂ capture. <i>Fuel Processing Technology</i> , 2021, 217, 106834.	7.2	16
7	Structurally improved, TiO ₂ -incorporated, CaO-based pellets for thermochemical energy storage in concentrated solar power plants. <i>Solar Energy Materials and Solar Cells</i> , 2021, 226, 111076.	6.2	58
8	Synthesis of waste bagasse-derived Li ₄ SiO ₄ -based ceramics for cyclic CO ₂ capture: Investigation on the effects of different pretreatment approaches. <i>Ceramics International</i> , 2021, 47, 28744-28753.	4.8	8
9	Structurally improved Li ₄ SiO ₄ sorbents derived from lithium salicylate precursor for enhanced CO ₂ capture. <i>Fuel Processing Technology</i> , 2021, 224, 107027.	7.2	14
10	Eutectic doped Li ₄ SiO ₄ adsorbents using the optimal dopants for highly efficient CO ₂ removal. <i>Journal of Materials Chemistry A</i> , 2021, 9, 14309-14318.	10.3	22
11	CaO/H ₂ O Thermochemical Heat Storage Capacity of a CaO/CeO ₂ Composite from CO ₂ Capture Cycles. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 16741-16750.	3.7	13
12	Incorporation of CaO into inert supports for enhanced CO ₂ capture: A review. <i>Chemical Engineering Journal</i> , 2020, 396, 125253.	12.7	92
13	Reactivation mode investigation of spent CaO-based sorbent subjected to CO ₂ looping cycles or sulfation. <i>Fuel</i> , 2020, 266, 117056.	6.4	28
14	Mechanochemically activated Li ₄ SiO ₄ -based adsorbent with enhanced CO ₂ capture performance and its modification mechanisms. <i>Fuel</i> , 2020, 273, 117749.	6.4	13
15	Progress in MgO sorbents for cyclic CO ₂ capture: a comprehensive review. <i>Journal of Materials Chemistry A</i> , 2019, 7, 20103-20120.	10.3	132
16	Thermochemical energy storage performances of Ca-based natural and waste materials under high pressure during CaO/CaCO ₃ cycles. <i>Energy Conversion and Management</i> , 2019, 197, 111885.	9.2	59
17	Mode investigation of CO ₂ sorption enhancement for titanium dioxide-decorated CaO-based pellets. <i>Fuel</i> , 2019, 256, 116009.	6.4	43
18	Novel low cost Li ₄ SiO ₄ -based sorbent with naturally occurring wollastonite as Si-source for cyclic CO ₂ capture. <i>Chemical Engineering Journal</i> , 2019, 374, 328-337.	12.7	34

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19	One-step synthesis of spherical CaO pellets via novel graphite-casting method for cyclic CO ₂ capture. Chemical Engineering Journal, 2019, 374, 619-625.	12.7	65
20	A semi-industrial preparation procedure of CaO-based pellets with high CO ₂ uptake performance. Fuel Processing Technology, 2019, 193, 149-158.	7.2	21
21	Stabilized Performance of Al-Decorated and Al/Mg Co-Decorated Spray-Dried CaO-Based CO ₂ Sorbents. Chemical Engineering and Technology, 2019, 42, 1283-1292.	1.5	18
22	Plastic/rubber waste-templated carbide slag pellets for regenerable CO ₂ capture at elevated temperature. Applied Energy, 2019, 242, 919-930.	10.1	115
23	Reactivation of CaO-based sorbents via multi-acidification under N ₂ or oxy-fuel (with and without) Tj ETQq1 1 0.784314 rgBT ₆ /Overlook	6.4	6
24	CO ₂ capture by Li ₄ SiO ₄ sorbents and their applications: Current developments and new trends. Chemical Engineering Journal, 2019, 359, 604-625.	12.7	142
25	Porous extruded-spheronized Li ₄ SiO ₄ pellets for cyclic CO ₂ capture. Fuel, 2019, 236, 1043-1049.	6.4	54
26	Preparation of Li ₄ SiO ₄ Sorbents for Carbon Dioxide Capture via a Spray-Drying Technique. Energy & Fuels, 2018, 32, 4521-4527.	5.1	33
27	Enhancement of CO ₂ Absorption in Li ₄ SiO ₄ by Acidification and Eutectic Doping. Energy & Fuels, 2018, 32, 12758-12765.	5.1	9
28	Performance of synthetic CaO-based sorbent pellets for CO ₂ capture and kinetic analysis. Fuel, 2018, 232, 205-214.	6.4	35
29	Acidification Optimization and Granulation of a Steel-Slag-Derived Sorbent for CO ₂ Capture. Chemical Engineering and Technology, 2018, 41, 2077-2086.	1.5	12
30	Stabilized CO ₂ capture performance of wet mechanically activated dolomite. Fuel, 2018, 222, 334-342.	6.4	41
31	One-step synthesis of porous Li ₄ SiO ₄ -based adsorbent pellets via graphite moulding method for cyclic CO ₂ capture. Chemical Engineering Journal, 2018, 353, 92-99.	12.7	120
32	Synthesis of highly efficient, structurally improved Li ₄ SiO ₄ sorbents for high-temperature CO ₂ capture. Ceramics International, 2018, 44, 16668-16677.	4.8	52
33	One-step synthesis of highly efficient CaO-based CO ₂ sorbent pellets via gel-casting technique. Fuel Processing Technology, 2017, 160, 70-77.	7.2	50
34	Conversion of Biomass into High-Quality Bio-oils by Degradative Solvent Extraction Combined with Subsequent Pyrolysis. Energy & Fuels, 2017, 31, 3987-3994.	5.1	28
35	Stabilized CO ₂ capture performance of extruded-spheronized CaO-based pellets by microalgae templating. Proceedings of the Combustion Institute, 2017, 36, 3977-3984.	3.9	47
36	Routine Investigation of CO ₂ Sorption Enhancement for Extruded-Spheronized CaO-Based Pellets. Energy & Fuels, 2017, 31, 9660-9667.	5.1	22

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37	Screening of Naturally Al/Si-Based Mineral Binders to Modify CaO-Based Pellets for CO ₂ Capture. <i>Energy & Fuels</i> , 2017, 31, 14070-14078.	5.1	33
38	Pelletization of MgO-based sorbents for intermediate temperature CO ₂ capture. <i>Fuel</i> , 2017, 187, 328-337.	6.4	50
39	Preparation of Novel Li ₄ SiO ₄ Sorbents with Superior Performance at Low CO ₂ Concentration. <i>ChemSusChem</i> , 2016, 9, 1607-1613.	6.8	55
40	CO ₂ Sorption Enhancement of Extruded-Spheronized CaO-Based Pellets by Sacrificial Biomass Templating Technique. <i>Energy & Fuels</i> , 2016, 30, 9605-9612.	5.1	43
41	Incorporation of CaO in inert solid matrix by spray drying sol mixture of precursors. <i>RSC Advances</i> , 2016, 6, 57658-57666.	3.6	13
42	Mechanical Modification of Naturally Occurring Limestone for High-Temperature CO ₂ Capture. <i>Energy & Fuels</i> , 2016, 30, 6597-6605.	5.1	38
43	High Temperature CO ₂ Capture on Novel Yb ₂ O ₃ -Supported CaO-Based Sorbents. <i>Energy & Fuels</i> , 2016, 30, 6606-6613.	5.1	33
44	Alkali-Doped Lithium Orthosilicate Sorbents for Carbon Dioxide Capture. <i>ChemSusChem</i> , 2016, 9, 2480-2487.	6.8	71
45	Limestone Decomposition in an O ₂ /CO ₂ /Steam Atmosphere Integrated with Coal Combustion. <i>Energy & Fuels</i> , 2016, 30, 5092-5100.	5.1	13
46	Investigation of novel naturally occurring manganocalcite for CO ₂ capture under oxy-fuel calcination. <i>Chemical Engineering Journal</i> , 2016, 296, 412-419.	12.7	34
47	Screening of inert solid supports for CaO-based sorbents for high temperature CO ₂ capture. <i>Fuel</i> , 2016, 181, 199-206.	6.4	127
48	Structurally improved CaO-based sorbent by organic acids for high temperature CO ₂ capture. <i>Fuel</i> , 2016, 167, 17-24.	6.4	114
49	Enhanced performance of extruded-spheronized carbide slag pellets for high temperature CO ₂ capture. <i>Chemical Engineering Journal</i> , 2016, 285, 293-303.	12.7	169
50	Incorporation of CaO into novel Nd ₂ O ₃ inert solid support for high temperature CO ₂ capture. <i>Chemical Engineering Journal</i> , 2015, 273, 333-343.	12.7	92
51	Structurally Improved, Core-in-Shell, CaO-Based Sorbent Pellets for CO ₂ Capture. <i>Energy & Fuels</i> , 2015, 29, 6636-6644.	5.1	65
52	Potassium catalytic hydrogen production in sorption enhanced gasification of biomass with steam. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 4234-4243.	7.1	82
53	Calcium Looping for CO ₂ Capture at a Constant High Temperature. <i>Energy & Fuels</i> , 2014, 28, 307-318.	5.1	43
54	Fabrication of CaO-Based Sorbents for CO ₂ Capture by a Mixing Method. <i>Environmental Science & Technology</i> , 2012, 46, 1932-1939.	10.0	84

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55	Performance of Extruded Particles from Calcium Hydroxide and Cement for CO ₂ Capture. Energy & Fuels, 2012, 26, 154-161.	5.1	111
56	Reactivation of calcium-based sorbent by water hydration for CO ₂ capture. Chemical Engineering Journal, 2012, 198-199, 38-44.	12.7	51
57	Synthesis of CaO-Based Sorbents for CO ₂ Capture by a Spray-Drying Technique. Environmental Science & Technology, 2012, 46, 11267-11272.	10.0	46
58	Performance Enhancement of Calcium Oxide Sorbents for Cyclic CO ₂ Capture—A Review. Energy & Fuels, 2012, 26, 2751-2767.	5.1	280
59	Effect of addition of weak acids on CO ₂ desorption from rich amine solvents. Korean Journal of Chemical Engineering, 2012, 29, 362-368.	2.7	13
60	Synthesis of Sintering-Resistant Sorbents for CO ₂ Capture. Environmental Science & Technology, 2010, 44, 3093-3097.	10.0	213
61	Calcium Precursors for the Production of CaO Sorbents for Multicycle CO ₂ Capture. Environmental Science & Technology, 2010, 44, 841-847.	10.0	234
62	Overcoming the Problem of Loss-in-Capacity of Calcium Oxide in CO ₂ Capture. Energy & Fuels, 2006, 20, 2417-2420.	5.1	108
63	Optimizing Synergy between Phosphogypsum Disposal and Cement Plant CO ₂ Capture by the Calcium Looping Process. Energy & Fuels, 0, , .	5.1	10