Pre-combustion, post-combustion and oxy-combustion capture

Applied Thermal Engineering 30, 53-62

DOI: 10.1016/j.applthermaleng.2009.05.005

Citation Report

#	ARTICLE	IF	CITATIONS
1	Characteristics and economic evaluation of a CO2-capturing repowering system with oxy-fuel combustion for utilizing exhaust gas of molten carbonate fuel cell (MCFC). Energy, 2009, 34, 1903-1909.	4.5	23
2	Characteristics and economic evaluation of a power plant applying oxy-fuel combustion to increase power output and decrease CO2 emission. Energy, 2010, 35, 3230-3238.	4.5	33
3	4-E (Energy, Exergy, Environment, and Economic) analysis of solar thermal aided coal-fired power plants. Energy for Sustainable Development, 2010, 14, 267-279.	2.0	156
5	Performance analyses of oxy-fuel power generation systems including CO2 capture: comparison of two cycles using different recirculation fluids. Journal of Mechanical Science and Technology, 2010, 24, 1947-1954.	0.7	20
6	Constructability study on a German reference IGCC power plant with and without CO2-capture for hard coal and lignite. Energy Conversion and Management, 2010, 51, 2179-2187.	4.4	68
7	Comprehensive evaluation of a CO2-capturing high-efficiency power generation system for utilizing waste heat from factories. International Journal of Energy Research, 2010, 34, 1096-1108.	2.2	3
8	Characteristic evaluation of a CO2-capturing repowering system based on oxy-fuel combustion and exergetic flow analyses for improving efficiency. International Journal of Energy Research, 2010, 34, n/a-n/a.	2.2	3
9	The Effect of Trivalent Cations on the Performance of Mgâ€Mâ€CO ₃ Layered Double Hydroxides for Highâ€Temperature CO ₂ Capture. ChemSusChem, 2010, 3, 965-973.	3.6	139
10	Oxy-fuel circulating fluidized bed combustion in a small pilot-scale test rig. Fuel Processing Technology, 2010, 91, 1617-1623.	3.7	103
11	Oxy-fuel combustion of solid fuels. Progress in Energy and Combustion Science, 2010, 36, 581-625.	15.8	940
12	Evaluation of geologic storage options of CO2: Applicability, cost, storage capacity and safety. Energy Policy, 2010, 38, 5072-5080.	4.2	66
13	PDA research on a novel pulverized coal combustion technology for a large utility boiler. Energy, 2010, 35, 2141-2148.	4.5	51
14	Performance Analysis of Existing 600MW Coal-Fired Power Plant with Ammonia-Based CO2 Capture. , 2010, , .		1
15	Highly-Selective and Reversible O ₂ Binding in Cr ₃ (1,3,5-benzenetricarboxylate) ₂ . Journal of the American Chemical Society, 2010, 132, 7856-7857.	6.6	307
16	Exergy Recuperative CO ₂ Gas Separation in Post-Combustion Capture. Industrial & Engineering Chemistry Research, 2011, 50, 10128-10135.	1.8	26
17	Water Use at Pulverized Coal Power Plants with Postcombustion Carbon Capture and Storage. Environmental Science & Environmental Science & Environmenta	4.6	123
18	Main Purification Operations. Green Energy and Technology, 2011, , 89-119.	0.4	0
19	Exergy Analysis of a 600 MW _e Oxy-combustion Pulverized-Coal-Fired Power Plant. Energy & Exergy Fuels, 2011, 25, 3854-3864.	2.5	64

#	Article	IF	Citations
20	Thermodynamic Optimization of Advanced Steam Power Plants Retrofitted for Oxy-Coal Combustion. Journal of Engineering for Gas Turbines and Power, 2011, 133, .	0.5	11
21	Performance Analysis of Existing 600MW Coal-Fired Power Plant with MEA-Based CO ₂ Capture. Applied Mechanics and Materials, 0, 130-134, 3807-3811.	0.2	0
22	Phase Equilibria of Mixed Gas Hydrates of Oxygen + Tetrahydrofuran, Nitrogen + Tetrahydrofuran, and Air + Tetrahydrofuran. Journal of Chemical & Engineering Data, 2011, 56, 4152-4156.	1.0	19
23	Metalâ^'Organic Frameworks as Adsorbents for Hydrogen Purification and Precombustion Carbon Dioxide Capture. Journal of the American Chemical Society, 2011, 133, 5664-5667.	6.6	465
24	Perspectives on CO ₂ capture and storage., 2011, 1, 119-133.		35
25	Gasification Technology and Its Contribution to Deal with Global Warming. Green Energy and Technology, 2011, , 151-175.	0.4	1
26	Integrated gasification combined cycle and carbon capture: A risky option to mitigate CO2 emissions of coal-fired power plants. Applied Energy, 2011, 88, 3917-3929.	5.1	68
27	Techno-economic evaluation of oxy-combustion coal-fired power plants. Science Bulletin, 2011, 56, 3333.	1.7	19
28	Advanced simulation environment for clean power production in IGCC plants. Computers and Chemical Engineering, 2011, 35, 1501-1520.	2.0	19
29	Performance evaluation of integrated gasification solid oxide fuel cell/gas turbine systems including carbon dioxide capture. Applied Energy, 2011, 88, 2976-2987.	5.1	88
30	Development of high stability catalysts to facilitate CO2 capture into water–An alternative to monoethanolamine and amine solvents. Energy Procedia, 2011, 4, 1691-1698.	1.8	10
31	CFD modelling of air-fired and oxy-fuel combustion of lignite in a 100KW furnace. Fuel, 2011, 90, 1778-1795.	3.4	100
32	Calcium-based sorbents behaviour during sulphation at oxy-fuel fluidised bed combustion conditions. Fuel, 2011, 90, 3100-3108.	3.4	63
33	Development, performance and stability of sulfur-free, macrovoid-free BSCF capillaries for high temperature oxygen separation from air. Journal of Membrane Science, 2011, 372, 239-248.	4.1	41
34	Performance Analysis of Existing 300MW Coal-Fired Power Plant with Ammonia-Based CO2 Capture. , 2011, , .		3
35	Conceptual feasibility study of retrofitting coal-fired power plant with oxy-fuel combustion. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2011, 225, 689-700.	0.8	7
36	Assessment of retrofitting possibility of an Indian pulverized coal boiler for operation with Indian coals in oxy-coal combustion mode with CO ₂ sequestration. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2012, 226, 1003-1013.	0.8	12
37	Evaluation of Design Performance of the Semi-Closed Oxy-Fuel Combustion Combined Cycle. Journal of Engineering for Gas Turbines and Power, 2012, 134, .	0.5	38

#	Article	IF	Citations
38	Techno-Economic Optimization of IGCC Integrated with Utility System for CO2 Emissions Reduction. Computer Aided Chemical Engineering, 2012, , 227-231.	0.3	2
39	Attrition of Limestone During Fluidized Bed Calcium Looping Cycles for CO ₂ Capture. Combustion Science and Technology, 2012, 184, 929-941.	1.2	45
40	Impact of Fuel Flexibility Needs on a Selected GT Performance in IGCC Application. , 2012, , .		3
41	Evaluation of Design Performance of the Semi-Closed Oxy-Fuel Combustion Combined Cycle., 2012,,.		1
42	Experimental Study of Methane Fuel Oxycombustion in an SI Engine. , 2012, , .		2
43	Improving Mass Transfer in Gas-Liquid by Ionic Liquids Dispersion. Journal of Dispersion Science and Technology, 2012, 33, 1723-1729.	1.3	7
44	Effect of Chemical Reaction Mechanisms and NO _{<i>x</i>} Modeling on Air-Fired and Oxy-Fuel Combustion of Lignite in a 100-kW Furnace. Energy & Ener	2.5	72
45	Multi-objective optimization of coal-fired electricity production with CO2 capture. Applied Energy, 2012, 98, 266-272.	5.1	42
46	Evaluation of Stirling cooler system for cryogenic CO2 capture. Applied Energy, 2012, 98, 491-501.	5.1	84
47	Carbon Capture and Storage in the Power Industry: Challenges and Opportunities. Energy Procedia, 2012, 16, 1806-1812.	1.8	24
48	Comparison of a pilot scale gasification installation performance when air or oxygen is used as gasification medium 1. Tars and gaseous hydrocarbons formation. Fuel, 2012, 101, 102-114.	3.4	19
49	Chemical looping processes for CO2 capture and carbonaceous fuel conversion – prospect and opportunity. Energy and Environmental Science, 2012, 5, 7254.	15.6	319
50	Pre-combustion carbon dioxide capture by gas–liquid absorption for Integrated Gasification Combined Cycle power plants. International Journal of Greenhouse Gas Control, 2012, 7, 1-11.	2.3	175
51	Techno-economic analysis of CO2 conditioning processes in a coal based oxy-combustion power plant. International Journal of Greenhouse Gas Control, 2012, 9, 419-427.	2.3	26
52	Thermoeconomic cost analysis of a 600MWe oxy-combustion pulverized-coal-fired power plant. International Journal of Greenhouse Gas Control, 2012, 9, 469-483.	2.3	39
53	An EU initiative for future generation of IGCC power plants using hydrogen-rich syngas: Simulation results for the baseline configuration. Applied Energy, 2012, 99, 280-290.	5.1	50
54	Flue gas compounds and microalgae: (Bio-)chemical interactions leading to biotechnological opportunities. Biotechnology Advances, 2012, 30, 1405-1424.	6.0	283
55	Integration and optimization study on the coal-fired power plant with CO 2 Âcapture using MEA. Energy, 2012, 45, 107-116.	4.5	98

#	ARTICLE	IF	CITATIONS
56	Laboratory scale studies on simulated underground coal gasification of high ash coals for carbon-neutral power generation. Energy, 2012, 46, 351-358.	4.5	46
57	CFD modelling of air-fired and oxy-fuel combustion in a large-scale furnace at Loy Yang A brown coal power station. Fuel, 2012, 102, 646-665.	3.4	135
58	Experimental Studies and Rate-Based Process Simulations of CO ₂ Absorption with Aqueous Ammonia Solutions. Industrial & Engineering Chemistry Research, 2012, 51, 5309-5319.	1.8	68
59	Inorganic membranes for carbon dioxide and nitrogen separation. Reviews in Chemical Engineering, 2012, 28, .	2.3	51
60	Technoâ€economic analysis of a 300 MWe coalâ€fired power plant retrofitted with postâ€combustion CO ₂ capture. Asia-Pacific Journal of Chemical Engineering, 2012, 7, S201.	0.8	4
61	Decarbonised coal energy system advancement through CO2 utilisation and polygeneration. Clean Technologies and Environmental Policy, 2012, 14, 443-451.	2.1	18
62	Experiences and results on a 0.8MWth oxy-fuel operation pilot-scale circulating fluidized bed. Applied Energy, 2012, 92, 343-347.	5.1	109
63	On the design, development and operation of an energy efficient CO2 removal for the oxidative coupling of methane in a miniplant scale. Applied Thermal Engineering, 2012, 43, 141-147.	3.0	16
64	Exergy analysis of a hydrogen fired combined cycle with natural gas reforming and membrane assisted shift reactors for CO2 capture. Energy Conversion and Management, 2012, 60, 196-203.	4.4	30
65	Oxy-fuel combustion of pulverized coal: Characterization, fundamentals, stabilization and CFD modeling. Progress in Energy and Combustion Science, 2012, 38, 156-214.	15.8	810
66	A review of efficiency penalty in a coal-fired power plant with post-combustion CO2 capture. Applied Energy, 2013, 111, 710-720.	5.1	413
67	Experimental study of honeycomb regenerator system for oxy-fuel combustion. Journal of Mechanical Science and Technology, 2013, 27, 1151-1154.	0.7	13
68	Techno-economic prospects for CO2 capture from distributed energy systems. Renewable and Sustainable Energy Reviews, 2013, 19, 328-347.	8.2	48
69	Preliminary Studies of CO ₂ Removal from Precombustion Syngas through Pressure Swing Membrane Absorption Process with Ionic Liquid as Absorbent. Industrial & Engineering Chemistry Research, 2013, 52, 8783-8799.	1.8	23
70	Flow and heat transfer characteristics in the syngas quench system of a 300ÂMWe IGCC process. Applied Thermal Engineering, 2013, 58, 11-21.	3.0	17
71	Optimum temperature for sulphur retention in fluidised beds working under oxy-fuel combustion conditions. Fuel, 2013, 114, 106-113.	3.4	53
72	Opportunities and challenges in carbon dioxide capture. Journal of CO2 Utilization, 2013, 1, 69-87.	3.3	379
73	Techno-economic optimization of IGCC integrated with utility system for CO2 emissions reduction—Maximum power production in IGCC. Chemical Engineering Research and Design, 2013, 91, 1403-1410.	2.7	5

#	ARTICLE	IF	Citations
74	Effect of composition and nanostructure on CO2/N2 transport properties of supported alkyl-imidazolium block copolymer membranes. Journal of Membrane Science, 2013, 430, 312-320.	4.1	47
75	Influence of gas turbine specification and integration option on the performance of integrated gasification solid oxide fuel cell/gas turbine systems with CO2 capture. Journal of Mechanical Science and Technology, 2013, 27, 2845-2856.	0.7	6
76	Working fluid composition effects on methane oxycombustion in an SI-engine: EGR vs. CO2. Proceedings of the Combustion Institute, 2013, 34, 2951-2958.	2.4	6
77	Thermally rearranged (TR) poly(benzoxazole-co-amide) membranes for hydrogen separation derived from 3,3′-dihydroxy-4,4′-diamino-biphenyl (HAB), 4,4′-oxydianiline (ODA) and isophthaloyl chloride (IPCl). Journal of Membrane Science, 2013, 446, 294-302.	4.1	64
78	Comprehensive investigation of CO2 adsorption on Mg–Al–CO3 LDH-derived mixed metal oxides. Journal of Materials Chemistry A, 2013, 1, 12782.	5.2	164
79	A novel process for capturing carbon dioxide using aqueous ammonia. Fuel Processing Technology, 2013, 108, 154-162.	3.7	45
80	Emissions reduction potential from CO2 capture: A life-cycle assessment of a Brazilian coal-fired power plant. Energy Policy, 2013, 61, 1221-1235.	4.2	38
81	Performance of coal fly-ash based oxygen carrier for the chemical looping combustion of synthesis gas. Applied Energy, 2013, 109, 44-50.	5.1	24
82	Realization of oxyfuel combustion for near zero emission power generation. Proceedings of the Combustion Institute, 2013, 34, 2111-2130.	2.4	66
83	Hydrogen permeation properties of Pd-coated V89.8Cr10Y0.2 alloy membrane using WGS reaction gases. International Journal of Hydrogen Energy, 2013, 38, 6085-6091.	3.8	9
84	Improving a Pre-Combustion CCS Concept in Gas Turbine Combined Cycle for CHP Production. Energy Procedia, 2013, 37, 2327-2340.	1.8	13
85	Analysis and optimization of CO2 capture in an existing coal-fired power plant in China. Energy, 2013, 58, 117-127.	4.5	43
86	Natural gas upgrading through hydrogen selective membranes: Application in Carbon Free Combined Cycles. Energy Procedia, 2013, 37, 914-923.	1.8	12
87	Cryogenic method for H2 and CH4 recovery from a rich CO2 stream in pre-combustion carbon capture and storage schemes. Energy, 2013, 53, 106-113.	4.5	40
88	Creep behaviour of membrane and substrate materials for oxygen separation units. Journal of the European Ceramic Society, 2013, 33, 1841-1848.	2.8	37
89	Coal based power plants using oxy-combustion for CO2 capture: Pressurized coal combustion to reduce capture penalty. Applied Thermal Engineering, 2013, 61, 115-122.	3.0	50
90	Thermodynamic and economic analysis of the different variants of a coal-fired, 460MW power plant using oxy-combustion technology. Energy Conversion and Management, 2013, 76, 109-120.	4.4	66
91	Kinetic characteristics of pulverized coal combustion in the two-phase flow. Energy, 2013, 55, 585-593.	4.5	11

#	Article	IF	CITATIONS
92	Future technological and economic performance of IGCC and FT production facilities with and without CO2 capture: Combining component based learning curve and bottom-up analysis. International Journal of Greenhouse Gas Control, 2013, 16, 287-310.	2.3	32
93	Pathway for Advanced Architectures of Oxy-pulverized Coal Power Plants: Minimization of the Global System Exergy Losses. Energy Procedia, 2013, 37, 1331-1340.	1.8	6
94	Energy and exergy analysis of a new hydrogen-fueled power plant based on calcium looping process. International Journal of Hydrogen Energy, 2013, 38, 5389-5400.	3.8	26
95	Low-temperature CO2 capture technologies – Applications and potential. International Journal of Refrigeration, 2013, 36, 1403-1416.	1.8	131
96	Greenhouse gas emission measurement and economic analysis of Iran natural gas fired power plants. Energy Policy, 2013, 60, 200-207.	4.2	13
97	Integrated combined cycle from natural gas with CO ₂ capture using a Ca–Cu chemical loop. AICHE Journal, 2013, 59, 2780-2794.	1.8	38
98	Gas adsorption by nanoporous materials: Future applications and experimental challenges. MRS Bulletin, 2013, 38, 412-421.	1.7	65
99	Numerical prediction of CO2 capture process by a single droplet in alkaline spray. Applied Energy, 2013, 109, 125-134.	5.1	16
100	Energy penalty of CO2 capture for the Carbonation–Calcination Reaction (CCR) Process: Parametric effects and comparisons with alternative processes. Fuel, 2013, 104, 561-574.	3.4	32
101	Thermogravimetric characteristics and combustion emissions of rubbers and polyvinyl chloride in N2/O2 and CO2/O2 atmospheres. Fuel, 2013, 104, 508-514.	3.4	15
102	Recent Development in Oxy-Combustion Technology and Its Applications to Gas Turbine Combustors and ITM Reactors. Energy & Development in Oxy-Combustors and ITM Reactors. Energy & Development in Oxy-Combustors and ITM Reactors.	2.5	89
103	Application of the Moving-Bed Chemical Looping Process for High Methane Conversion. Energy & Samp; Fuels, 2013, 27, 4119-4128.	2.5	62
104	Improving Physical Absorption of Carbon Dioxide by Ionic Liquid Dispersion. Chemical Engineering and Technology, 2013, 36, 1402-1410.	0.9	8
105	New technologies reduce greenhouse gas emissions from nitrogenous fertilizer in China. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8375-8380.	3.3	593
106	Exergy Analysis and Heat Integration of a Coal-Based Oxy-combustion Power Plant. Energy & Samp; Fuels, 2013, 27, 7138-7149.	2.5	30
108	Oxy–Fuel Combustion in the Lab–Scale and Large–Scale Fuel– Fired Furnaces for Thermal Power Generations. , 2013, , .		3
109	Process engineering method for systematically comparing CO2 capture options. Computer Aided Chemical Engineering, 2013, , 367-372.	0.3	7
110	CALCULATION OF THE AMOUNT OF ESTONIAN OIL SHALE PRODUCTS FROM COMBUSTION IN REGULAR AND OXY-FUEL MODE IN A CFB BOILER. Oil Shale, 2014, 31, 211.	0.5	17

#	Article	IF	CITATIONS
111	Heat Integration of Biomass Co-firing in Coal Power Plant. Energy Procedia, 2014, 61, 1756-1759.	1.8	1
112	Enhancement of Carbon Dioxide Mass Transfer Rate by (Ionic Liquid)-in-Water Emulsion. Advanced Materials Research, 0, 881-883, 113-117.	0.3	1
113	An Improved CO2 Separation and Purification System Based on Cryogenic Separation and Distillation Theory. Energies, 2014, 7, 3484-3502.	1.6	165
114	Experimental Study of Methane Fuel Oxycombustion in a Spark-Ignited Engine. Journal of Energy Resources Technology, Transactions of the ASME, 2014, 136, .	1.4	11
115	Carbon Capture and Storage Development Trends from a Techno-Paradigm Perspective. Energies, 2014, 7, 5221-5250.	1.6	22
116	Greenhouse Effect Mitigation Through Photocatalytic Technology. Handbook of Environmental Chemistry, 2014, , 375-404.	0.2	0
117	Comparison of Post-combustion CO2 Capture by Solutions of Ammonia and Organic Amines: Assessment Using Direct and Indirect Contactors. Energy Procedia, 2014, 63, 550-558.	1.8	1
118	Using real options to determine optimal funding strategies for CO2 capture, transport and storage projects in the European Union. Energy Policy, 2014, 66, 115-134.	4.2	17
119	A simplified method for the evaluation of the performance of coal fired power plant with carbon capture. Applied Thermal Engineering, 2014, 64, 263-272.	3.0	28
120	Economic analysis of a supercritical coal-fired CHP plant integrated with an absorption carbon capture installation. Energy, 2014, 64, 513-523.	4.5	51
121	Performance assessment of first generation oxy-coal power plants through an exergy-based process integration methodology. Energy, 2014, 69, 272-284.	4.5	34
122	Performance assessment of CO2 capture with calcination carbonation reaction process driven by coal and concentrated solar power. Applied Thermal Engineering, 2014, 70, 13-24.	3.0	36
123	CO2 capture performance of HKUST-1 in a sound assisted fluidized bed. Chemical Engineering Journal, 2014, 239, 75-86.	6.6	77
124	Tailoring hierarchically structured SiO ₂ spheres for high pressure CO ₂ adsorption. Journal of Materials Chemistry A, 2014, 2, 13624-13634.	5.2	15
125	New technology for post-combustion abatement of carbon dioxide via an in situ generated superoxide anion-radical. RSC Advances, 2014, 4, 36544-36552.	1.7	3
126	A Facile fabrication of mesoporous core–shell CaO-Based pellets with enhanced reactive stability and resistance to attrition in cyclic CO ₂ capture. Journal of Materials Chemistry A, 2014, 2, 16577-16588.	5.2	51
127	CCS technology development in China: Status, problems and countermeasuresâ€"Based on SWOT analysis. Renewable and Sustainable Energy Reviews, 2014, 39, 604-616.	8.2	67
128	Performance of a triple power generation cycle combining gas/steam turbine combined cycle and solid oxide fuel cell and the influence of carbon capture. Applied Thermal Engineering, 2014, 71, 301-309.	3.0	63

#	ARTICLE	IF	CITATIONS
129	Sorbent enhanced hydrogen production from steam gasification of coal integrated with CO2 capture. International Journal of Hydrogen Energy, 2014, 39, 17001-17008.	3.8	29
130	An overview of current status of carbon dioxide capture and storage technologies. Renewable and Sustainable Energy Reviews, 2014, 39, 426-443.	8.2	2,253
131	Equilibrium CO2 Capture in Aqueous Blend of Trisodium Phosphate and Piperazine. Journal of Chemical & Chemical	1.0	4
132	A review of the protection strategies against internal corrosion for the safe transport of supercritical CO 2 via steel pipelines for CCS purposes. International Journal of Greenhouse Gas Control, 2014, 29, 185-199.	2.3	80
133	CO2 adsorption on fine activated carbon in a sound assisted fluidized bed: Effect of sound intensity and frequency, CO2 partial pressure and fluidization velocity. Applied Energy, 2014, 113, 1269-1282.	5.1	58
134	Thermodynamic Modeling and Assessment of Ionic Liquid-Based CO ₂ Capture Processes. Industrial & Engineering Chemistry Research, 2014, 53, 11805-11817.	1.8	112
135	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.	3.4	27
136	Numerical Modeling of Oxy-fuel Combustion in a Refractory-Lined Down Flame Furnace. Energy & Samp; Fuels, 2014, 28, 155-162.	2.5	9
137	Design of Steam Cycles for Oxy-combustion Coal based Power Plants with Emphasis on Heat Integration. Energy Procedia, 2014, 51, 119-126.	1.8	12
138	Spark-ignited engine NOx emissions in a low-nitrogen oxycombustion environment. Applied Energy, 2014, 118, 22-31.	5.1	11
139	CCS (carbon capture and storage) investment possibility in South East Europe: A case study for Croatia. Energy, 2014, 70, 325-337.	4.5	36
140	Gas and particle flow characteristics in the gas reversing chamber of a syngas cooler for a 300ÂMWe IGCC process. Applied Thermal Engineering, 2014, 70, 388-396.	3.0	18
141	Dynamic modelling of a CO2 capture and purification unit for an oxy-coal-fired power plant. International Journal of Greenhouse Gas Control, 2014, 22, 111-122.	2.3	26
142	Energy and Economic Analysis of the CO2 Capture from Flue Gas of Combined Cycle Power Plants. Energy Procedia, 2014, 45, 1165-1174.	1.8	44
143	Flash evaporation and thermal vapor compression aided energy saving CO2 capture systems in coal-fired power plant. Energy, 2014, 66, 556-568.	4.5	22
144	TGA-FTIR investigation of chemical looping combustion by coal with CoFe2O4 combined oxygen carrier. Journal of Analytical and Applied Pyrolysis, 2014, 105, 369-378.	2.6	42
145	CO2 capturing from power plant flue gases: Energetic comparison of amine absorption with MgO based, heat integrated, pressure–temperature-swing adsorption. International Journal of Greenhouse Gas Control, 2014, 22, 256-271.	2.3	12
146	The influence of the size of the CHP (combined heat and power) system integrated with a biomass fueled gas generator and piston engine on the thermodynamic and economic effectiveness of electricity and heat generation. Energy, 2014, 67, 328-340.	4.5	69

#	Article	IF	Citations
147	Fuzzy optimization of multi-period carbon capture and storage systems with parametric uncertainties. Chemical Engineering Research and Design, 2014, 92, 545-554.	2.7	34
148	Enhanced Pressure Swing Membrane Absorption Process for CO2 Removal from Shifted Syngas with Dendrimer–lonic Liquid Mixtures as Absorbent. Industrial & Engineering Chemistry Research, 2014, 53, 3305-3320.	1.8	22
149	Non-dispersive absorption of CO2 in [emim][EtSO4] and [emim][Ac]: Temperature influence. Separation and Purification Technology, 2014, 132, 120-125.	3.9	40
150	CO2 adsorption performance for amine grafted particulate silica aerogels. Chemical Engineering Journal, 2014, 254, 190-197.	6.6	93
152	Environmental Issues in Coal Utilization and Mitigation Measures. , 2015, , 449-470.		0
154	Development of an oxy-fuel combustor with fuel preheating for regenerator system. Journal of Mechanical Science and Technology, 2015, 29, 4555-4559.	0.7	1
155	Carbon Dioxide Sequestration by Using a Model Carbonic Anhydrase Complex in Tertiary Amine Medium. ChemSusChem, 2015, 8, 3977-3982.	3. 6	19
156	CO ₂ , NO _x and SO _x removal from flue gas via microalgae cultivation: A critical review. Biotechnology Journal, 2015, 10, 829-839.	1.8	132
157	CO ₂ Absorbing Capacity of MEA. Journal of Chemistry, 2015, 2015, 1-7.	0.9	50
158	H2 Selective Membranes for Precombustion Carbon Capture. , 2015, , 177-206.		1
159	Study on a new IGCC (Integrated Gasification Combined Cycle) system with CO2 capture by integrating MCFC (Molten Carbonate Fuel Cell). Energy, 2015, 87, 490-503.	4.5	58
160	Carbon Capture and Storageâ^—. , 2015, , 329-366.		5
161	System Integration and Techno-Economy Analysis of the IGCC Plant With CO2 Capture: Results of the EU H2-IGCC Project. , 2015 , , .		0
162	Electrochemical separation of CO2 from a simulated flue gas with high-temperature ceramic–carbonate membrane: New observations. Journal of Membrane Science, 2015, 477, 1-6.	4.1	35
163	Computational modelling of co-firing of biomass with coal under oxy-fuel condition in a small scale furnace. Fuel, 2015, 143, 455-466.	3.4	99
164	Mechanism and Kinetics of CO ₂ Adsorption on Surface Bonded Amines. Journal of Physical Chemistry C, 2015, 119, 4126-4135.	1.5	111
165	Flue Gas Desulfurization in Oxygen-Enriched Atmospheres Using Modified Limestone Sorbents. Energy & Samp; Fuels, 2015, 29, 331-336.	2.5	9
166	Magnetite loaded carbon fine particles as low-cost CO2 adsorbent in a sound assisted fluidized bed. Proceedings of the Combustion Institute, 2015, 35, 2801-2809.	2.4	38

#	Article	IF	CITATIONS
167	Environment, Energy and Climate Change I. Handbook of Environmental Chemistry, 2015, , .	0.2	14
168	Energy-saving pathway exploration of CCS integrated with solar energy: Literature research and comparative analysis. Energy Conversion and Management, 2015, 102, 66-80.	4.4	34
169	A comparative thermodynamic, economic and risk analysis concerning implementation of oxy-combustion power plants integrated with cryogenic and hybrid air separation units. Energy Conversion and Management, 2015, 92, 421-430.	4.4	58
170	Numerical simulation of oxy-fuel combustion for gas turbine applications. Applied Thermal Engineering, 2015, 78, 471-481.	3.0	42
171	Investigation of the Kinetics of Carbonation Reaction with Cao-Based Sorbents Using Experiments and Aspen Plus Simulation. Chemical Engineering Communications, 2015, 202, 746-755.	1.5	27
172	Optimal revamp of multi-region carbon capture and storage (CCS) systems by two-step linear optimization. Energy Systems, 2015, 6, 269-289.	1.8	11
173	High temperature CO2 adsorption by mesoporous silica supported magnesium aluminum mixed oxide. Chemical Engineering Journal, 2015, 280, 703-710.	6.6	34
174	Improvement in thermal efficiency of regenerator system by using oxy-fuel combustion. Applied Thermal Engineering, 2015, 87, 648-654.	3.0	9
175	Energy and exergy analysis of chemical looping combustion technology and comparison with pre-combustion and oxy-fuel combustion technologies for CO2 capture. Journal of Environmental Chemical Engineering, 2015, 3, 2104-2114.	3.3	96
177	CFD modelling of co-firing of biomass with coal under oxy-fuel combustion in a large scale power plant. Fuel, 2015, 159, 150-168.	3.4	136
178	Study on heat integration of supercritical coal-fired power plant with post-combustion CO2 capture process through process simulation. Fuel, 2015, 158, 625-633.	3.4	43
179	Carbon Dioxide Capture Technology for the Coal-Powered Electricity Industry. , 2015, , 217-237.		0
180	Layered double oxide/activated carbon-based composite adsorbent for elevated temperature H 2 /CO 2 separation. International Journal of Hydrogen Energy, 2015, 40, 9244-9253.	3.8	37
181	Efficiency enhancement of pressurized oxy-coal power plant with heat integration. International Journal of Energy Research, 2015, 39, 256-264.	2.2	18
182	Enhanced Precombustion Capture of Carbon Dioxide by Gas Hydrate Formation in Water-in-Oil Emulsions. Energy & Samp; Fuels, 2015, 29, 2971-2978.	2.5	22
183	A systematic investigation of the performance of copper-, cobalt-, iron-, manganese- and nickel-based oxygen carriers for chemical looping combustion technology through simulation models. Chemical Engineering Science, 2015, 130, 79-91.	1.9	36
184	Effect of operating conditions on the CO 2 recovery from a fine activated carbon by means of TSA in a fluidized bed assisted by acoustic fields. Fuel Processing Technology, 2015, 134, 494-501.	3.7	43
185	Sensitivity analysis of oxy-fuel power plant system. Energy Conversion and Management, 2015, 98, 138-150.	4.4	27

#	Article	IF	CITATIONS
186	A comparative review between amines and ammonia as sorptive media for post-combustion CO2 capture. Applied Energy, 2015, 148, 10-22.	5.1	172
187	Comparative analysis of four gas-fired, carbon capture-enabled power plant layouts. Clean Technologies and Environmental Policy, 2015, 17, 2143-2156.	2.1	10
188	Possibilities for improving the thermodynamic and economic characteristics of an oxy-type power plant with a cryogenic air separation unit. Energy, 2015, 85, 45-61.	4.5	18
190	Molten carbonate fuel cells for CO2 separation and segregation by retrofitting existing plants – An analysis of feasible operating windows and first experimental findings. International Journal of Greenhouse Gas Control, 2015, 35, 120-130.	2.3	41
191	Tunable Water and CO ₂ Sorption Properties in Isostructural Azine-Based Covalent Organic Frameworks through Polarity Engineering. Chemistry of Materials, 2015, 27, 7874-7881.	3.2	192
192	Cost-efficient cultivation of Spirulina platensis by chemical absorption of CO2 into medium containing NaOH. Korean Journal of Chemical Engineering, 2015, 32, 2285-2289.	1.2	5
193	Thermal efficiency of coal-fired power plants: From theoretical to practical assessments. Energy Conversion and Management, 2015, 105, 530-544.	4.4	52
194	Mixed matrix membranes composed of two-dimensional metal–organic framework nanosheets for pre-combustion CO ₂ capture: a relationship study of filler morphology versus membrane performance. Journal of Materials Chemistry A, 2015, 3, 20801-20810.	5.2	121
195	Decision support for ranking Pareto optimal process designs under uncertain market conditions. Computers and Chemical Engineering, 2015, 83, 165-175.	2.0	18
196	Using palladium membranes for carbon capture in natural gas combined cycle (NGCC) power plants: process integration and techno-economics., 2015,, 247-285.		0
197	Performance analysis of a feasible technology for power and high-purity hydrogen production driven by methane fuel. Applied Thermal Engineering, 2015, 75, 103-114.	3.0	48
198	Emerging applications of graphene and its derivatives in carbon capture and conversion: Current status and future prospects. Renewable and Sustainable Energy Reviews, 2015, 41, 1515-1545.	8.2	58
199	Numerical modelling of oxy fuel combustion, the effect of radiative and convective heat transfer and burnout. Fuel, 2015, 139, 268-284.	3.4	86
200	A general framework for the assessment of solar fuel technologies. Energy and Environmental Science, 2015, 8, 126-157.	15.6	293
201	Syngas-fueled, chemical-looping combustion-based power plant lay-out for clean energy generation. Clean Technologies and Environmental Policy, 2015, 17, 237-247.	2.1	13
203	Thermo-economic investigation: an insight tool to analyze NGCC with calcium-looping process and with chemical-looping combustion for CO ₂ capture. International Journal of Energy Research, 2016, 40, 1908-1924.	2.2	11
204	Study on different zero CO ₂ emission IGCC systems with CO ₂ capture by integrating OTM. International Journal of Energy Research, 2016, 40, 1410-1427.	2.2	10
205	A systematic approach to the modeling and simulation of a Sorption Enhanced Water Gas Shift (SEWGS) process for CO2 capture. Separation and Purification Technology, 2016, 157, 80-92.	3.9	31

#	Article	IF	CITATIONS
206	A technical and economic study on solar-assisted ammonia-based post-combustion CO2 capture of power plant. Applied Thermal Engineering, 2016, 102, 412-422.	3.0	25
207	Release and dispersion behaviour of carbon dioxide released from a small-scale underground pipeline. Journal of Loss Prevention in the Process Industries, 2016, 43, 165-173.	1.7	9
208	Heat and work integration: Fundamental insights and applications to carbon dioxide capture processes. Energy Conversion and Management, 2016, 121, 36-48.	4.4	46
209	Core/Shell Nanostructured Materials for Sustainable Processes. International Journal of Chemical Reactor Engineering, 2016, 14, 667-684.	0.6	7
210	Detailed plant layout studies of oxy-enriched CO2 pulverized coal combustion-based power plant with CO2 enrichment. Clean Technologies and Environmental Policy, 2016, 18, 1985-1996.	2.1	6
211	Precombustion CO2 capture using a hybrid process of adsorption and gas hydrate formation. Energy, 2016, 102, 621-629.	4.5	48
212	An elevated-pressure cryogenic air separation unit based on self-heat recuperation technology for integrated gasification combined cycle systems. Energy, 2016, 103, 440-446.	4.5	23
214	Review of pre-combustion capture and ionic liquid in carbon capture and storage. Applied Energy, 2016, 183, 1633-1663.	5.1	245
215	Amine based CO2 capture – CFD simulation of absorber performance. Applied Mathematical Modelling, 2016, 40, 10222-10237.	2.2	30
216	Introduction to CO2 Electroreduction. Electrochemical Energy Storage and Conversion, 2016, , 1-46.	0.0	1
217	Capture and storage of CO2 into waste phosphogypsum: the modified Merseburg process. Clean Technologies and Environmental Policy, 2016, 18, 2709-2715.	2.1	17
218	NH 2 -MIL-125 as membrane for carbon dioxide sequestration: Thin supported MOF layers contra Mixed-Matrix-Membranes. Journal of Membrane Science, 2016, 516, 185-193.	4.1	58
219	The salt-based catalytic enhancement of CO ₂ absorption by a tertiary amine medium. RSC Advances, 2016, 6, 64575-64580.	1.7	10
220	Modelling of slag deposition and flow characteristics of coal combustion under oxy-firing condition in a 550 MW tangentially fired furnace. Applied Thermal Engineering, 2016, 106, 221-235.	3.0	25
221	Optimal retrofit of a CO2 capture pilot plant using superstructure and rate-based models. International Journal of Greenhouse Gas Control, 2016, 50, 57-69.	2.3	28
222	Facile Synthesis of High-Surface-Area Mesoporous MgO with Excellent High-Temperature CO ₂ Adsorption Potential. Industrial & Engineering Chemistry Research, 2016, 55, 8070-8078.	1.8	52
223	An informatics-based analysis of developments to date and prospects for the application of microalgae in the biological sequestration of industrial flue gas. Applied Microbiology and Biotechnology, 2016, 100, 2073-2082.	1.7	19
224	Time and temperature depended fuel gas generation from pyrolysis of real world municipal plastic waste. Fuel, 2016, 174, 164-171.	3.4	185

#	Article	IF	CITATIONS
225	Enhanced oxygen permeability of novel Cu-containing CO2-tolerant dual-phase membranes. Journal of Membrane Science, 2016, 503, 158-165.	4.1	24
226	Empirical formula for the mass flux in chemical absorption of CO2 with ammonia droplets. Applied Energy, 2016, 164, 1-9.	5.1	9
227	Techno-economic analysis of four concepts for thermal decomposition of methane: Reduction of CO 2 emissions in natural gas combustion. Energy Conversion and Management, 2016, 110, 1-12.	4.4	52
228	Techno-economic evaluation of an integrated hydrogen and power co-generation system with CO 2 capture. International Journal of Greenhouse Gas Control, 2016, 44, 94-103.	2.3	24
229	Prediction of carbon dioxide solubility in ionic liquids using MLP and radial basis function (RBF) neural networks. Journal of the Taiwan Institute of Chemical Engineers, 2016, 60, 151-164.	2.7	58
230	CO2-mitigation options for the offshore oil and gas sector. Applied Energy, 2016, 161, 673-694.	5.1	48
231	Critical technologies for sustainable energy development in Brazil: technological foresight based on scenario modelling. Journal of Cleaner Production, 2016, 130, 12-24.	4.6	29
232	High-purity hydrogen production from ash-free coal by catalytic steam gasification integrated with dry-sorption CO2 capture. Fuel, 2016, 178, 272-282.	3.4	37
233	Hydrogen production with CO2 capture. International Journal of Hydrogen Energy, 2016, 41, 4969-4992.	3.8	343
234	A clean coal utilization technology based on coal pyrolysis and chemical looping with oxygen uncoupling: Principle and experimental validation. Energy, 2016, 98, 181-189.	4.5	35
235	Pressurized oxy-fuel combustion performance of pulverized coal for CO 2 capture. Applied Thermal Engineering, 2016, 99, 411-418.	3.0	49
236	Exergy analysis of methane cracking thermally coupled with chemical looping combustion for hydrogen production. Applied Energy, 2016, 168, 1-12.	5.1	52
237	Comparative Study of MIL-96(Al) as Continuous Metal–Organic Frameworks Layer and Mixed-Matrix Membrane. ACS Applied Materials & Samp; Interfaces, 2016, 8, 7536-7544.	4.0	84
238	Effects of carbon dioxide in oxy-fuel atmosphere on catalytic combustion in a small-scale channel. Energy, 2016, 94, 766-774.	4.5	9
239	Some of tomorrow's catalysts for processing renewable and non-renewable feedstocks, diminishing anthropogenic carbon dioxide and increasing the production of energy. Energy and Environmental Science, 2016, 9, 687-708.	15.6	69
240	CO 2 sorption on surface-modified carbonaceous support: Probing the influence of the carbon black microporosity and surface polarity. Applied Surface Science, 2016, 360, 329-337.	3.1	35
241	Novel method for investigation of a K–Mg-based CO 2 sorbent for sorption-enhanced water–gas shift reaction. Renewable Energy, 2016, 87, 415-421.	4.3	11
242	Modeling of Solid and Bio-Fuel Combustion Technologies. , 2016, , 259-309.		12

#	Article	IF	CITATIONS
243	Thermal characterization of coal/straw combustion under air/oxy-fuel conditions in a swirl-stabilized furnace: A CFD modelling. Applied Thermal Engineering, 2016, 93, 639-651.	3.0	49
244	Finely tuning MOFs towards high-performance post-combustion CO ₂ capture materials. Chemical Communications, 2016, 52, 443-452.	2.2	131
245	A cryogenic air separation process based on self-heat recuperation for oxy-combustion plants. Applied Energy, 2016, 162, 1114-1121.	5.1	63
246	The characteristics of recycled NO reduction over char during oxy-fuel fluidized bed combustion. Applied Energy, 2017, 190, 553-562.	5.1	31
247	Experimental study of atmospheric partially premixed oxy-combustion flames anchored over a perforated plate burner. Energy, 2017, 122, 159-167.	4.5	27
248	Economic performance evaluation of process system design flexibility options under uncertainty: The case of hydrogen production plants with integrated membrane technology and CO2 capture. Computers and Chemical Engineering, 2017, 99, 214-229.	2.0	14
249	Methane recovery from natural gas hydrate with simulated IGCC syngas. Energy, 2017, 120, 192-198.	4.5	39
250	Screening and techno-economic assessment of biomass-based power generation with CCS technologies to meet 2050 CO2 targets. Applied Energy, 2017, 190, 481-489.	5.1	126
251	Experimental investigations on unmixed combustion for heat transfer applications. Chemical Engineering Science, 2017, 164, 122-132.	1.9	9
252	Mass Transfer Analysis of CO ₂ Capture by PVDF Membrane Contactor and Ionic Liquid. Chemical Engineering and Technology, 2017, 40, 678-690.	0.9	11
253	Oxy-fuel combustion technology: current status, applications, and trends. International Journal of Energy Research, 2017, 41, 1670-1708.	2.2	93
254	Adsorption of CO2 on a confined fluidized bed of pelletized 13X zeolite. Powder Technology, 2017, 311, 9-17.	2.1	42
255	Enhanced CO2 absorption and desorption in a tertiary amine medium with a carbonic anhydrase mimic. Journal of Industrial and Engineering Chemistry, 2017, 52, 287-294.	2.9	24
256	Thermodynamic and ecological assessment of selected coal-fired power plants integrated with carbon dioxide capture. Applied Energy, 2017, 200, 73-88.	5.1	37
257	Analysis of supercritical coal fired oxy combustion power plant with cryogenic oxygen unit and turbo-compressor. Energy, 2017, 128, 271-283.	4.5	16
258	Synthesis of a Highly Active and Stable Nickelâ€Embedded Alumina Catalyst for Methane Dry Reforming: On the Confinement Effects of Alumina Shells for Nickel Nanoparticles. ChemCatChem, 2017, 9, 3563-3571.	1.8	37
259	Towards retrofitting integrated gasification combined cycle (IGCC) power plants with solid oxide fuel cells (SOFC) and CO2 capture – A thermodynamic case study. Applied Thermal Engineering, 2017, 114, 170-185.	3.0	50
260	Simplified numerical modelling of oxy-fuel combustion of pulverized coal in a swirl burner. Applied Thermal Engineering, 2017, 124, 734-745.	3.0	29

#	Article	IF	CITATIONS
261	Improving Prediction Accuracy of a Rate-Based Model of an MEA-Based Carbon Capture Process for Large-Scale Commercial Deployment. Engineering, 2017, 3, 232-243.	3.2	23
262	Conceptual design and modelling of an industrial scale power to gas-oxy-combustion power plant. International Journal of Hydrogen Energy, 2017, 42, 19411-19419.	3.8	27
263	Efficient pressure swing adsorption for improving H2 recovery in precombustion CO2 capture. Korean Journal of Chemical Engineering, 2017, 34, 1763-1773.	1.2	10
264	Structure–Thermodynamicâ€Property Relationships in Cyanovinylâ€Based Microporous Polymer Networks for the Future Design of Advanced Carbon Capture Materials. Advanced Functional Materials, 2017, 27, 1700233.	7.8	34
265	Performance, economic and exergy analyses of carbon capture processes for a 300ÂMW class integrated gasification combined cycle power plant. Energy, 2017, 134, 731-742.	4.5	38
266	CFD modeling and thermodynamic analysis of a concept of a MILD-OXY combustion large scale pulverized coal boiler. Energy, 2017, 140, 1305-1315.	4.5	52
267	A review on thermal and catalytic pyrolysis of plastic solid waste (PSW). Journal of Environmental Management, 2017, 197, 177-198.	3.8	717
268	Impact of plastic blends on the product yield from co-pyrolysis of lignin-rich materials. Journal of Analytical and Applied Pyrolysis, 2017, 124, 415-425.	2.6	44
269	Future applications of hydrogen production and CO2 utilization for energy storage: Hybrid Power to Gas-Oxycombustion power plants. International Journal of Hydrogen Energy, 2017, 42, 13625-13632.	3.8	41
270	Effect of pore size, aminosilane density and aminosilane molecular length on CO 2 adsorption performance in aminosilane modified mesoporous silica. Microporous and Mesoporous Materials, 2017, 246, 158-165.	2.2	43
271	Modelling the injection of upgraded brown coals in an ironmaking blast furnace. Powder Technology, 2017, 314, 550-556.	2.1	55
272	The role of CO2 on oxy-colorless distributed combustion. Applied Energy, 2017, 188, 466-474.	5.1	44
273	Experimental study on CO2 capture mechanisms using Na2ZrO3 sorbents synthesized by soft chemistry method. Chemical Engineering Journal, 2017, 313, 646-654.	6.6	52
274	Up-to-date CO2 Capture in Thermal Power Plants. Energy Procedia, 2017, 114, 95-103.	1.8	31
275	Comparison of Different CO2 Recovery Processes in their Optimum Operating Conditions from a Pulverized Coal Power Plant. Energy Procedia, 2017, 114, 1360-1365.	1.8	4
276	Assessment of Amine Solvent Flexibility in the OCTAVIUS Project. Energy Procedia, 2017, 114, 1366-1379.	1.8	3
277	Evaluation of the ocean ecosystem: Climate change modelling with backstop technologies. Applied Energy, 2017, 205, 428-439.	5.1	9
278	Zeolite-Supported Iron Oxides as Durable and Selective Oxygen Carriers for Chemical Looping Combustion. Energy & Energy	2.5	11

#	ARTICLE	IF	CITATIONS
279	Solubility of CO2 in aqueous solutions of DAMP+MDEA, DAMP+MEA, DAH+MDEA and DAH+MEA. Journal of Natural Gas Science and Engineering, 2017, 46, 526-532.	2.1	7
280	Integrated Carbon Capture and Conversion To Produce Syngas: Novel Process Design, Intensification, and Optimization. Industrial & Engineering Chemistry Research, 2017, 56, 8622-8648.	1.8	42
281	The Influence of the Monoethanolamine concentration on the performances of the coal-fired thermal power plant with CO <inf>2</inf> capture and storage. , 2017, , .		1
282	Novel system integrations of 1000 MW coal-fired power plant retrofitted with solar energy and CO2 capture system. Applied Thermal Engineering, 2017, 125, 1133-1145.	3.0	30
283	Increasing the carbon capture efficiency of the Ca/Cu looping process for power production with advanced process schemes. Chemical Engineering Journal, 2017, 328, 304-319.	6.6	26
284	Energy and exergy investigation on two improved IGCC power plants with different CO2 capture schemes. Energy, 2017, 140, 47-57.	4.5	26
285	Substituted Benzoxazole and Catechol Cocrystals as an Adsorbent for CO2 Capture: Synthesis and Mechanistic Studies. Crystal Growth and Design, 2017, 17, 4504-4510.	1.4	4
286	Adsorption of carbon dioxide on TEPA-modified TiO ₂ /titanate composite nanorods. New Journal of Chemistry, 2017, 41, 7870-7885.	1.4	16
287	Thermal Integration of Postcombustion CO2 Capture in Existing Natural Gas Combined Cycle–Combined Heat and Power Plant. Journal of Energy Engineering - ASCE, 2017, 143, .	1.0	3
288	The impact of using the post-combustion CCS on the coal-fired TPP internal consumptions. , 2017, , .		1
289	CO2 capture performance of silver-carbonate membrane with electrochemically dealloyed porous silver matrix. Journal of Membrane Science, 2017, 523, 439-445.	4.1	19
290	Hybrid Solvent ([emim][Ac]+water) To Improve the CO ₂ Capture Efficiency in a PVDF Hollow Fiber Contactor. ACS Sustainable Chemistry and Engineering, 2017, 5, 734-743.	3.2	19
291	Application of organic Rankine cycle in integration of thermal power plant with post-combustion CO 2 capture and compression. Energy, 2017, 118, 927-936.	4.5	23
292	Parametric analysis using AMP and MEA as aqueous solvents for CO 2 absorption. Applied Thermal Engineering, 2017, 110, 126-135.	3.0	24
293	Carbon pump: Fundamental theory and applications. Energy, 2017, 119, 1131-1143.	4.5	73
294	Corrosion Mechanisms and Materials Selection for the Construction of Flue Gas Component in Advanced Heat and Power Systems. Industrial & Engineering Chemistry Research, 2017, 56, 14141-14154.	1.8	24
295	CuO supported on manganese ore as an oxygen carrier for chemical looping with oxygen uncoupling (CLOU). Chemical Engineering Journal, 2018, 343, 340-350.	6.6	22
296	Analytical methods for the monitoring of post-combustion CO2 capture process using amine solvents: A review. International Journal of Greenhouse Gas Control, 2018, 72, 138-151.	2.3	26

#	Article	IF	CITATIONS
297	Hierarchical Nanostructures of Metalâ€Organic Frameworks Applied in Gas Separating ZIFâ€8â€onâ€ZIFâ€67 Membranes. Chemistry - A European Journal, 2018, 24, 5728-5733.	1.7	53
298	Oxygen Removal from Oxy-Combustion Flue Gas for CO ₂ Purification via Catalytic Methane Oxidation. Industrial & Engineering Chemistry Research, 2018, 57, 1954-1960.	1.8	13
299	Economic Assessment of Methanol Production. , 2018, , 613-632.		5
300	Cost Estimation of an Integrated System for Co-production of Electricity and Methanol. , 2018, , 633-659.		1
301	Sequestration and utilization of carbon dioxide by chemical and biological methods for biofuels and biomaterials by chemoautotrophs: Opportunities and challenges. Bioresource Technology, 2018, 256, 478-490.	4.8	126
302	Modeling of unmixed combustion based packed bed reactor system for heat transfer applications. Chemical Engineering Science, 2018, 178, 367-376.	1.9	7
303	Facile synthesis of silica aerogel supported K2CO3 sorbents with enhanced CO2 capture capacity for ultra-dilute flue gas treatment. Fuel, 2018, 215, 735-743.	3.4	58
304	Exploration of the material property space for chemical looping air separation applied to carbon capture and storage. Applied Energy, 2018, 212, 478-488.	5.1	26
305	Application of chemical looping air separation for MILD oxy-combustion: Identifying a suitable operational region. Applied Thermal Engineering, 2018, 132, 8-17.	3.0	17
306	Highâ€Performance Activated Carbons Synthesized from Nanocellulose for CO ₂ Capture and Extremely Selective Removal of Volatile Organic Compounds. Advanced Sustainable Systems, 2018, 2, 1700147.	2.7	41
307	Integration of chemical looping combustion and supercritical CO2 cycle for combined heat and power generation with CO2 capture. Energy Conversion and Management, 2018, 167, 113-124.	4.4	36
308	Isotherms and thermodynamics of CO2 adsorption on a novel carbon-magnetite composite sorbent. Chemical Engineering Research and Design, 2018, 134, 540-552.	2.7	131
309	Mature versus emerging technologies for CO2 capture in power plants: Key open issues in post-combustion amine scrubbing and in chemical looping combustion. Frontiers of Chemical Science and Engineering, 2018, 12, 315-325.	2.3	39
310	Effect of recycled flue gas ratios for pellet type biomass combustion in a packed bed furnace. International Journal of Heat and Mass Transfer, 2018, 120, 1031-1043.	2.5	33
311	Soot formation during polyurethane (PU) plastic pyrolysis: The effects of temperature and volatile residence time. Energy Conversion and Management, 2018, 164, 353-362.	4.4	35
312	Hydrodynamic characteristics in a pilot-scale cold flow model for chemical looping combustion. Advanced Powder Technology, 2018, 29, 1499-1506.	2.0	9
313	Life cycle greenhouse gas assessment of hydrogen production via chemical looping combustion thermally coupled steam reforming. Journal of Cleaner Production, 2018, 179, 335-346.	4.6	57
314	Efficiency analysis of air-fuel and oxy-fuel combustion in a reheating furnace. International Journal of Heat and Mass Transfer, 2018, 121, 1364-1370.	2.5	29

#	Article	IF	CITATIONS
315	A review on thermo-chemical characteristics of coal/biomass co-firing in industrial furnace. Journal of the Energy Institute, 2018, 91, 1-18.	2.7	102
316	Optimization of CO2 adsorption capacity and cyclical adsorption/desorption on tetraethylenepentamine-supported surface-modified hydrotalcite. Journal of Environmental Sciences, 2018, 65, 293-305.	3.2	23
317	Review on CFD Modelling of Fluidized Bed Combustion Systems based on Biomass and Co-firing. Journal of the Institution of Engineers (India): Series C, 2018, 99, 449-474.	0.7	20
318	CO 2 adsorption over modified AC samples: A new methodology for determining selectivity. Catalysis Today, 2018, 301, 112-124.	2.2	10
319	Numerical study of the ignition front propagation of different pelletised biomass in a packed bed furnace. Applied Thermal Engineering, 2018, 128, 772-784.	3.0	54
320	Life cycle analysis of a combined CO2 capture and conversion membrane reactor. Journal of Membrane Science, 2018, 549, 142-150.	4.1	20
321	Thermodynamic and economic investigation of coal-fired power plant combined with various supercritical CO2 Brayton power cycle. Applied Thermal Engineering, 2018, 130, 611-623.	3.0	138
322	Potassiumâ€catalyzed steam gasification of ashâ€free lignite coal with CO ₂ capture. Canadian Journal of Chemical Engineering, 2018, 96, 250-258.	0.9	4
323	Kinetics study and simulation of CO ₂ absorption into mixed aqueous solutions of methyldiethanolamine and hexylamine. Oil and Gas Science and Technology, 2018, 73, 19.	1.4	4
324	THERMO-ECONOMIC ANALYSIS OF ORGANIC RANKINE CYCLE (ORC) WITH CO2 CAPTURE SYSTEM FOR COAL-FIRED POWER PLANT WASTE HEAT RECOVERY. International Journal of Energy for A Clean Environment, 2018, 19, 303-322.	0.6	3
325	Optimized process configuration for CO2 recovery from crude synthesis gas via a rectisol wash process. International Journal of Greenhouse Gas Control, 2018, 79, 83-90.	2.3	26
326	Effect of plastic blends on slow pyrolysis of oil palm empty fruit bunch. AIP Conference Proceedings, 2018, , .	0.3	4
327	Technology Evolution in Membrane-Based CCS. Energies, 2018, 11, 3153.	1.6	22
328	Technoeconomic Assessment of Polymeric, Ceramic, and Metallic Membrane Integration in an Advanced IGCC Process for CO2 Separation and Capture. , 2018, , 511-549.		5
329	From post-combustion carbon capture to sorption-enhanced hydrogen production: A state-of-the-art review of carbonate looping process feasibility. Energy Conversion and Management, 2018, 177, 428-452.	4.4	59
330	Process optimization and working fluid mixture design for organic Rankine cycles (ORCs) recovering compression heat in oxy-combustion power plants. Energy Conversion and Management, 2018, 175, 132-141.	4.4	18
331	Modified respiratory quotient to evaluate the environmental impact of Chinese coal combustion. International Journal of Oil, Gas and Coal Technology, 2018, 17, 238.	0.1	0
332	System Integration and Optimization for Large Scale Oxy-fuel Combustion Systems. , 2018, , 223-238.		0

#	Article	IF	CITATIONS
333	CO 2 â€"Capture and Storage. , 2018, , 61-130.		3
334	Biogas Cleaning: Activated Carbon Regeneration for H2S Removal. Clean Technologies, 2018, 1, 40-57.	1.9	40
335	An experimental investigation on pressure response and phase transition of supercritical carbon dioxide releases from a smallâ€scale pipeline. Asia-Pacific Journal of Chemical Engineering, 2018, 13, e2197.	0.8	4
336	Energy-efficient process intensification for post-combustion CO2 capture: A modeling approach. Energy, 2018, 158, 471-483.	4.5	15
337	CO2 Sequestration Using Ensemble Kalman Filter and Considering a Sustainability Approach., 2018,,.		2
338	Density, Viscosity, and N ₂ O Solubility of Aqueous Solutions of MEA, BmimBF ₄ , and Their Mixtures from 293.15 to 333.15 K. Journal of Chemical & Engineering Data, 2018, 63, 2708-2717.	1.0	2
339	Frontiers in combustion techniques and burner designs for emissions control and CO ₂ capture: A review. International Journal of Energy Research, 2019, 43, 7790.	2.2	22
340	Chemical looping technology in CHP (combined heat and power) and CCHP (combined cooling heating) Tj ETQq1	1 ₀ .7843	14 rgBT /O
341	A comprehensive review of metal corrosion in a supercritical CO2 environment. International Journal of Greenhouse Gas Control, 2019, 90, 102814.	2.3	43
342	Reduction of CO2 emission for solar power backup by direct integration of oxy-combustion supercritical CO2 power cycle with concentrated solar power. Energy Conversion and Management, 2019, 201, 112161.	4.4	17
343	Recycling waste-derived marble powder for CO2 capture. Chemical Engineering Research and Design, 2019, 132, 214-225.	2.7	33
345	The Characteristics of a Modern Oxy-Fuel Power Plant. Energies, 2019, 12, 3374.	1.6	9
346	Integration of Power Plants with Different Capacities with Aqueous Ammonia-Based CO ₂ Capture. Energy & Capture	2.5	7
347	Life-cycle energy, cost, and CO2 emission of CO2-enhanced coalbed methane (ECBM) recovery framework. Journal of Natural Gas Science and Engineering, 2019, 70, 102953.	2.1	25
348	Formation characteristics of ultra fine particles during oxy-coal combustion with flue gas recirculation. IOP Conference Series: Earth and Environmental Science, 2019, 295, 052019.	0.2	1
349	Predictive control of CO2 emissions from a grate boiler based on fuel nature structures using intelligent neural network and Box-Behnken design. Energy Procedia, 2019, 158, 364-369.	1.8	3
350	Molecular simulation of flue gas and CH4 competitive adsorption in dry and wet coal. Journal of Natural Gas Science and Engineering, 2019, 71, 102980.	2.1	34
351	Performance Analysis of Air and Oxy-Fuel Laminar Combustion in a Porous Plate Reactor. Energies, 2019, 12, 1706.	1.6	7

#	Article	IF	CITATIONS
352	A review on photochemical, biochemical and electrochemical transformation of CO2 into value-added products. Journal of CO2 Utilization, 2019, 33, 131-147.	3.3	303
353	Gas-fired chemical looping combustion with supercritical CO2 cycle. Applied Energy, 2019, 249, 237-244.	5.1	23
354	CO ₂ Adsorption under Dynamic Conditions: An Overview on Rice Husk-Derived Sorbents and Other Materials. Combustion Science and Technology, 2019, 191, 1484-1498.	1.2	4
355	Fuzzy AHP model for challenges to thermal power plant establishment in India. International Journal of Operational Research, 2019, 34, 562.	0.1	20
356	Study on the Key Technology of CO ₂ Compression and Purification in Oxy-Fuel Combustion Coal-Fired Power Plant. Energy & Samp; Fuels, 2019, 33, 3349-3356.	2.5	5
357	Carbon capture and storage retrofit: Case study for Croatia. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2021, 43, 3238-3250.	1.2	12
358	A comparative performance analysis of a solid oxide fuel cell and gas turbine combined cycles with carbon capture technologies. Journal of Mechanical Science and Technology, 2019, 33, 1463-1475.	0.7	11
359	A modified Allam cycle without compressors realizing efficient power generation with peak load shifting and CO2 capture. Energy, 2019, 174, 478-487.	4.5	53
360	Thermodynamic assessment and optimization of a pressurized fluidized bed oxy-fuel combustion power plant with CO2 capture. Energy, 2019, 175, 445-455.	4.5	47
361	Review of post-combustion carbon dioxide capture technologies using activated carbon. Journal of Environmental Sciences, 2019, 83, 46-63.	3.2	210
362	Morphology control of magnesium carbonate for CO2 utilization using Mg2+ ions in industrial wastewater depending on length of alkyl chain of primary alkanolamine, reaction temperature, CO2 concentration, and Mg2+/Na+ ratio. Chemical Engineering Journal, 2019, 370, 237-250.	6.6	35
363	A feasible process for removal and utilization of CO2 in thermal power plants by MDEAâ€+†DMSO scrubbing and Cu/TiO2 photocatalytic reduction. Applied Thermal Engineering, 2019, 153, 369-378.	3.0	10
364	A Review of Mineral Carbonation from Industrial Waste. IOP Conference Series: Earth and Environmental Science, 2019, 401, 012008.	0.2	5
365	Research advances on process systems integration and process safety in China. Reviews in Chemical Engineering, 2019, 36, 147-185.	2.3	3
366	Equilibrium Adsorption Study of CO ₂ and N ₂ on Synthesized Zeolites 13X, 4A, 5A, and Beta. Journal of Chemical & Engineering Data, 2019, 64, 5648-5664.	1.0	47
367	Impregnation of hydrotalcite with NaNO3 for enhanced high-temperature CO2 sorption uptake. Chemical Engineering Journal, 2019, 356, 964-972.	6.6	16
368	Coal and biomass cofiring. , 2019, , 117-140.		20
369	A flexible CO2 capture operation scheme design and evaluation of a coal-fired power plant integrated with a novel DCP and retrofitted solar system. Energy, 2019, 170, 73-84.	4.5	9

#	Article	IF	CITATIONS
370	A conceptual chemical looping combustion power system design in a power-to-gas energy storage scenario. International Journal of Hydrogen Energy, 2019, 44, 9636-9642.	3.8	30
371	Techno-economic evaluation of the integrated polygeneration system of methanol, power and heat production from coke oven gas. Energy Conversion and Management, 2019, 182, 240-250.	4.4	57
372	Progress in non-intrusive laser-based measurements of gas-phase thermoscalars and supporting modeling near catalytic interfaces. Progress in Energy and Combustion Science, 2019, 70, 169-211.	15.8	47
373	Molecular simulation of coal-fired plant flue gas competitive adsorption and diffusion on coal. Fuel, 2019, 239, 87-96.	3.4	64
374	Feedstock and Optimal Operation for Plastics to Fuel Conversion in Pyrolysis., 2019, , 117-146.		10
375	Towards the development of materials for chemically stable carbonate-ceramic membranes to be used for CO2 separation in water-gas-shift reactors. Separation and Purification Technology, 2019, 215, 378-383.	3.9	14
376	Critical assessment of oxy-fuel integrated coal gasification combined cycles. Applied Energy, 2019, 233-234, 156-169.	5.1	21
377	Exceptionally High CO ₂ Adsorption at 273 K by Microporous Carbons from Phenolic Aerogels: The Role of Heteroatoms in Comparison with Carbons from Polybenzoxazine and Other Organic Aerogels. Macromolecular Chemistry and Physics, 2019, 220, 1800333.	1.1	25
378	Global warming potential and net power output analysis of natural gas combined cycle power plants coupled with CO2 capture systems and organic Rankine cycles. Journal of Cleaner Production, 2019, 208, 11-18.	4.6	37
379	Contact Angle and Condensation of a CO2 Droplet on a Solid Surface. Journal of Physical Chemistry C, 2019, 123, 443-451.	1.5	9
380	Experimental study on N2O emission in O2/CO2 combustion with high oxygen concentration in circulating fluidized bed. Journal of the Energy Institute, 2019, 92, 128-135.	2.7	13
381	Integration of commercial CO2 capture plant with primary reformer stack of ammonia plant. Journal of Thermal Analysis and Calorimetry, 2019, 135, 1899-1909.	2.0	20
383	Non-ideal modelling of polymeric hollow-fibre membrane systems: Pre-combustion CO2 capture case study. Journal of Membrane Science, 2020, 595, 117470.	4.1	13
384	CFD simulation of biomass thermal conversion under air/oxy-fuel conditions in a reciprocating grate boiler. Renewable Energy, 2020, 146, 1416-1428.	4.3	50
385	Enhancement of biofuel production by microalgae using cement flue gas as substrate. Environmental Science and Pollution Research, 2020, 27, 17571-17586.	2.7	26
386	Thermodynamic feasibility for molybdenum-based gaseous oxides assisted looping coal gasification and its derived power plant. Energy, 2020, 194, 116830.	4.5	5
387	Pressurized tubular solid oxide H ₂ O/CO ₂ coelectrolysis cell for direct powerâ€toâ€methane. AICHE Journal, 2020, 66, e16896.	1.8	17
388	Effective modeling methods to accurately predict the miscibility of CO2 in ionic liquids. Chemical Engineering Research and Design, 2020, 154, 262-272.	2.7	6

#	Article	IF	CITATIONS
389	Kinetic study of CO2 capture on ternary nitrates modified MgO with different precursor and morphology. Chemical Engineering Journal, 2020, 392, 123752.	6.6	27
390	Toward a Mechanistic Understanding and Optimization of Molten Alkali Metal Borates (A _{<i>x</i>} B _{1â€"<i>x</i>} O _{1.5â€"<i>x</i>}) for High-Temperature CO ₂ Capture. Chemistry of Materials, 2020, 32, 348-359.	3.2	21
391	Parametric Study of Various Thermodynamic Cycles for the Use of Unconventional Blends. Energies, 2020, 13, 4656.	1.6	6
392	Effect of selected ammonia escape inhibitors on carbon dioxide capture and utilization via calcium carbonate precipitation. Journal of CO2 Utilization, 2020, 42, 101298.	3.3	12
393	The effect of flue gas contaminants on the CO2 electroreduction to formic acid. Journal of CO2 Utilization, 2020, 42, 101315.	3.3	29
394	Challenges of carbon capture technologies deployment in developing countries. Sustainable Energy Technologies and Assessments, 2020, 42, 100837.	1.7	23
395	Performance analysis of solar-assisted CO2 adsorption capture system based on dynamic simulation. Solar Energy, 2020, 209, 628-645.	2.9	13
396	MgO/carbon nanofibers composite coatings on porous ceramic surface for CO2 capture. Surface and Coatings Technology, 2020, 400, 126208.	2.2	13
397	Utilization of Gaseous Carbon Dioxide and Industrial Ca-Rich Waste for Calcium Carbonate Precipitation: A Review. Energies, 2020, 13, 6239.	1.6	18
398	Progress on carbon dioxide capture, storage and utilisation. International Journal of Global Warming, 2020, 20, 124.	0.2	21
399	Economic, environmental, and social impacts of the hydrogen supply system combining wind power and natural gas. International Journal of Hydrogen Energy, 2020, 45, 24159-24173.	3.8	22
400	Techno-Economic Analysis of Pressurized Oxy-Fuel Combustion of Petroleum Coke. Energies, 2020, 13, 3463.	1.6	13
401	Experimental Study on Postcombustion Systems Including a Hollow Fiber Membrane and a Packed Column. ACS Omega, 2020, 5, 17692-17702.	1.6	6
402	lonic liquids, deep eutectic solvents and liquid polymers as green solvents in carbon capture technologies: a review. Environmental Chemistry Letters, 2020, 18, 2031-2054.	8.3	103
403	A critical review to bridge the gaps between carbon capture, storage and use of CaCO3. Journal of CO2 Utilization, 2020, 42, 101333.	3.3	37
404	Efficient Removal of Ammonia by Hierarchically Porous Carbons from a CO ₂ Capture Process. Chemical Engineering and Technology, 2020, 43, 2031-2040.	0.9	7
405	Molecular Simulation Study on Adsorption and Diffusion Behaviors of CO ₂ /N ₂ in Lignite. ACS Omega, 2020, 5, 29416-29426.	1.6	21
406	Critical Analysis and Evaluation of the Technology Pathways for Carbon Capture and Utilization. Clean Technologies, 2020, 2, 492-512.	1.9	8

#	Article	IF	Citations
407	Whether CCS technologies will exacerbate the water crisis in China? â€"A full life-cycle analysis. Renewable and Sustainable Energy Reviews, 2020, 134, 110374.	8.2	23
408	High Pressure Supercritical Carbon Dioxide Separation from its Mixture with Nitrogen at Different Temperatures. Materials Science Forum, 0, 1008, 1-14.	0.3	2
409	Carbon capture technologies for climate change mitigation: A bibliometric analysis of the scientific discourse during 1998â€"2018. Energy Reports, 2020, 6, 1200-1212.	2.5	66
410	Research and Development of Supercritical Carbon Dioxide Coal-Fired Power Systems. Journal of Thermal Science, 2020, 29, 546-575.	0.9	27
411	Nanoconfinement of metal oxide MgO and ZnO in zeolitic imidazolate framework ZIF-8 for CO2 adsorption and regeneration. Journal of Hazardous Materials, 2020, 400, 122974.	6.5	65
412	Energy and Economic Costs of Chemical Storage. Frontiers in Mechanical Engineering, 2020, 6, .	0.8	66
414	Experimental study on the formation of ultrafine particulate matters (PMs) during pulverized coal (PC) char combustion in O2/N2 and O2/CO2 atmospheres. Journal of the Energy Institute, 2020, 93, 2197-2203.	2.7	7
415	Perspectives on oxygen-based coal conversion towards zero-carbon power generation. Energy, 2020, 196, 117074.	4.5	5
416	CO2 capturing, thermo-kinetic principles, synthesis and amine functionalization of covalent organic polymers for CO2 separation from natural gas: A review. Journal of Natural Gas Science and Engineering, 2020, 77, 103203.	2.1	68
417	Current technology development for CO2 utilization into solar fuels and chemicals: A review. Journal of Energy Chemistry, 2020, 49, 96-123.	7.1	208
418	Approaches for Clean Combustion in Gas Turbines. Fluid Mechanics and Its Applications, 2020, , .	0.1	3
419	A Structured Approach for the Mitigation of Natural Methane Emissions—Lessons Learned from Anthropogenic Emissions. Journal of Carbon Research, 2020, 6, 24.	1.4	7
420	Modeling of single coal particle combustion in O2/N2 and O2/CO2 atmospheres under fluidized bed condition. Frontiers in Energy, 2021, 15, 99-111.	1.2	1
421	Optimal liquified natural gas (LNG) cold energy utilization in an Allam cycle power plant with carbon capture and storage. Energy Conversion and Management, 2021, 228, 113725.	4.4	41
422	Experimental analysis of CO/H2 syngas with NOx and SOx reactions in pressurized oxy-fuel combustion. Energy, 2021, 219, 119550.	4.5	17
423	Enhanced CO ₂ /N ₂ separation by supported ionic liquid membranes (SILMs) based on PDMS and 1-ethyl-3-methylimidazolium acetate. Chemical Engineering Communications, 2021, 208, 137-147.	1.5	8
424	Potential Application of Ionic Liquids and Deep Eutectic Solvents in Reduction of Industrial CO2 Emissions., 2021,, 643-673.		0
425	Biomass Co-Firing With Carbon Capture. , 2022, , 330-347.		3

#	Article	IF	CITATIONS
426	Carbon dioxide as a main source of air pollution: Prospective and current trends to control., 2021 ,, $623-688$.		3
427	Characterization of flame synthesized Pd–TiO ₂ nanocomposite catalysts for oxygen removal from CO ₂ -rich streams in oxy combustion exhausts. Catalysis Science and Technology, 2021, 11, 4763-4775.	2.1	2
428	Solid Circulation Study in a 1.5 MWth Cold Flow Model of Chemical Looping Combustion. Industrial & Looping Chemistry Research, 2021, 60, 2265-2277.	1.8	4
429	Natural gas hydrate resources and hydrate technologies: a review and analysis of the associated energy and global warming challenges. Energy and Environmental Science, 2021, 14, 5611-5668.	15.6	147
430	Simulation and Techno-economic Analysis of a CO2 Capture Scheme for Combustion Processes. IOP Conference Series: Earth and Environmental Science, 2021, 655, 012042.	0.2	0
431	Feasibility study of CO ₂ /N ₂ separation intensification on supported ionic liquid membranes by commonly used impregnation methods., 2021, 11, 297-312.		2
432	Sustainability of natural gas chemical looping combustion from efficiency, economic and emergy analyses. Journal of Environmental Chemical Engineering, 2021, 9, 104959.	3.3	2
433	Thermodynamic and Economic Analysis of Oxy-Fuel-Integrated Coal Partial Gasification Combined Cycle. ACS Omega, 2021, 6, 4262-4272.	1.6	4
434	Numerical investigation of 660 MW pulverized coal-fired supercritical power plant retrofitted to oxy-coal combustion. International Journal of Greenhouse Gas Control, 2021, 105, 103227.	2.3	18
435	A simulation study of the effect of post-combustion amine-based carbon-capturing integrated with solar thermal collectors for combined cycle gas power plant. Discover Sustainability, 2021, 2, 1.	1.4	3
436	Nanofluid and nanoemulsion absorbents for the enhancement of CO2 absorption performance. Journal of Cleaner Production, 2021, 291, 125848.	4.6	14
437	The Role of Carbon Capture and Storage in the Energy Transition. Energy & E	2.5	116
438	Membrane technology applied to steel production: Investigation based on process modelling and environmental tools. Journal of Cleaner Production, 2021, 294, 126256.	4.6	10
439	Investigation of growth limitation by CO2 mass transfer and inorganic carbon source for the microalga Chlorella vulgaris in a dedicated photobioreactor. Chemical Engineering Science, 2021, 233, 116388.	1.9	24
440	Synthetic Fuels Based on Dimethyl Ether as a Future Non-Fossil Fuel for Road Transport From Sustainable Feedstocks. Frontiers in Energy Research, 2021, 9, .	1.2	28
441	A comprehensive review on the application of aerogels in CO2-adsorption: Materials and characterisation. Chemical Engineering Journal, 2021, 412, 128604.	6.6	92
442	Numerical study on the effects of intake charge on oxy-fuel combustion in a dual-injection spark ignition engine at economical oxygen-fuel ratios. International Journal of Engine Research, 2022, 23, 1602-1616.	1.4	5
443	Comparative studies of carbon capture onto coal fly ash zeolites Na-X and Na–Ca-X. Chemosphere, 2021, 271, 129505.	4.2	25

#	Article	IF	CITATIONS
444	Intelligent Street Lighting in a Smart City Conceptsâ€"A Direction to Energy Saving in Cities: An Overview and Case Study. Energies, 2021, 14, 3018.	1.6	42
445	Techno-economic and carbon footprint feasibility assessment for polygeneration process of carbon-capture coal-to-methanol/power and molten carbonate fuel cell. Energy Conversion and Management, 2021, 235, 114015.	4.4	22
446	Performance modeling of Allam cycle integrated with a cryogenic air separation process. Computers and Chemical Engineering, 2021, 148, 107263.	2.0	23
447	Movement and combustion characteristics of densified rice hull pellets in a fluidized bed combustor at elevated pressures. Fuel, 2021, 294, 120421.	3.4	9
448	Effect of flue gas recirculation on efficiency of an indirect supercritical CO2 oxy-fuel circulating fluidized bed power plant. Energy, 2021, 227, 120487.	4.5	15
449	Experimental screening of oxygen carrier for a pressurized chemical looping combustion. Fuel Processing Technology, 2021, 218, 106860.	3.7	11
450	Synthesis of Poly(ionic Liquid)s- <i>block</i> -poly(methyl Methacrylate) Copolymer-Grafted Silica Particle Brushes with Enhanced CO ₂ Permeability and Mechanical Performance. Langmuir, 2021, 37, 10875-10881.	1.6	7
451	Oxyâ€fuel combustion for carbon capture and storage in internal combustion engines – A review. International Journal of Energy Research, 2022, 46, 505-522.	2.2	24
452	Flame stabilization and soot emission of methane jet flames for CO2 diluted oxy-combustion at elevated pressure. Combustion and Flame, 2021, 231, 111490.	2.8	3
453	Carbon Capture Systems for Building-Level Heating Systems—A Socio-Economic and Environmental Evaluation. Sustainability, 2021, 13, 10681.	1.6	4
454	Numerical investigation on implementing Oxy-Fuel Combustion (OFC) in an ethanol-gasoline Dual-Fuel Spark Ignition (DFSI) engine. Fuel, 2021, 302, 121162.	3.4	20
455	Understanding initial opportunities and key challenges for CCUS deployment in India at scale. Resources, Conservation and Recycling, 2021, 175, 105829.	5.3	36
456	Research on Status and Outlook of Using Different Solvents for CO2 Capture in a Rotating Packed Bed. E3S Web of Conferences, 2021, 294, 06004.	0.2	0
457	Cu@Pt/NCNT preparation and electrochemical performance. Journal of Materials Science: Materials in Electronics, 2021, 32, 4214-4227.	1.1	0
458	A perspective on fossil fuel based flue gas emission reduction technologies., 2020, 10, 664-677.		11
459	Reducing Greenhouse Gas Emissions with CO2 Capture and Geological Storage., 2012,, 1405-1440.		14
460	Reducing Greenhouse Gas Emissions with CO2 Capture and Geological Storage., 2015,, 1-40.		4
461	Reduction and oxidation kinetics of solid fuel chemical looping combustion over a core-shell structured nickel-based oxygen carrier: Application of a developed grain size distribution model. Fuel, 2020, 274, 117838.	3.4	11

#	Article	IF	CITATIONS
462	Applications of CCS in the Cement Industry. RSC Energy and Environment Series, 2019, , 315-352.	0.2	2
463	CaO-based High-temperature CO2 Sorbents. Inorganic Materials Series, 2018, , 144-237.	0.5	2
464	CHAPTER 5. System and Processes of Pre-combustion Carbon Dioxide Capture and Separation. Inorganic Materials Series, 2018, , 281-334.	0.5	4
465	Second Law Analysis of an Energy Storage System Consisting of an Electrolysis Plant and the Graz Cycle With Internal H2/O2 Combustion. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	0.5	2
466	A REVIEW OF PRE-COMBUSTION CO2 CAPTURE IN IGCC. International Journal of Research in Engineering and Technology, 2013, 02, 847-853.	0.1	5
467	Review of CO2Storage Projects and Driving Strategy of CO2Storage Program in Korea. KEPCO Journal on Electric Power and Energy, 2016, 2, 167-185.	0.1	3
468	Carbon Capture; Transport and Storage in Europe: A Problematic Energy Bridge to Nowhere?. SSRN Electronic Journal, 0, , .	0.4	5
470	Carbon Dioxide Removal by Adsorption. Journal of Applied Sciences, 2014, 14, 3142-3148.	0.1	17
471	Perspectives on The Techno-Economic Analysis of Carbon Capture and Storage. Journal of Technology Management and Innovation, 2019, 14, 3-17.	0.5	5
472	Influence of Oxygen Supply Method on the Performance of IGCC Plants. Transactions of the Korean Hydrogen and New Energy Society, 2012, 23, 264-273.	0.1	2
473	Experimental investigation of coal and pellet combustion in a manual loaded stove. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-15.	1.2	2
474	Research and development of high efficiency low emission combined cycle power plant arrangements. Journal of Physics: Conference Series, 2021, 2053, 012005.	0.3	0
475	Reversible CO2 absorption and release by fatty acid salt aqueous solutions: From industrial capture to agricultural applications. Journal of CO2 Utilization, 2021, 54, 101746.	3.3	1
476	Performance Prediction of a Gas Turbine Using CO2as Working Fluid. Journal of Fluid Machinery, 2011, 14, 41-46.	0.3	0
477	Overview of CO2 Capture Technology. Springer Briefs in Molecular Science, 2015, , 17-24.	0.1	1
478	Efficiency of Supercritical Coal Power Stations with Integrated CO2 Capture and Compression Systems Based on Oxy-combustion Technology. Acta Energetica, 2016, 26, 69-76.	0.1	1
479	Reducing Greenhouse Gas Emissions with CO2 Capture and Geological Storage., 2017,, 2197-2237.		3
480	Thermal Degradation of Aqueous MEA Solution for CO2Absorption by Nuclear Magnetics Resonance. Transactions of the Korean Hydrogen and New Energy Society, 2016, 27, 562-570.	0.1	0

#	Article	IF	Citations
481	Characterization of the Vanadium Alloy Thin Films Coated by Sputtering. Korean Chemical Engineering Research, 2016, 54, 598-605.	0.2	1
482	CHAPTER 17. Capturing CO2 with Poly(Ionic Liquid)s. RSC Smart Materials, 2017, , 489-514.	0.1	1
484	Advances in Bio-based Polymer Membranes for CO2 Separation. Materials Horizons, 2019, , 277-307.	0.3	1
485	Second Law Analysis of an Energy Storage System Consisting of an Electrolysis Plant and the Graz Cycle With Internal H2/O2 Combustion. , 2019, , .		O
486	Carbon based nanocomposite material for CO2 capture technology. Gorenie I Plazmohimi \tilde{A}^{ξ} , 2019, 17, 9-13.	0.0	0
487	Carbon Storage and Utilization as a Local Response to Use Fossil Fuels in a Sustainable Manner. Green Energy and Technology, 2020, , 275-290.	0.4	1
488	Burner Designs for Clean Power Generation in Gas Turbines. Fluid Mechanics and Its Applications, 2020, , 99-164.	0.1	0
489	Removal and recovery of SO2 and NO in oxy-fuel combustion flue gas by calcium-based slurry. E3S Web of Conferences, 2020, 194, 04062.	0.2	0
491	Equilibrium adsorption and kinetic study of CO2 and N2 on synthesized carbon Black–Zeolite composite. Separation and Purification Technology, 2022, 280, 119917.	3.9	14
493	A review on materials and processes for carbon dioxide separation and capture. Energy and Environment, 2023, 34, 3-57.	2.7	9
494	Li-doped beryllonitrene for enhanced carbon dioxide capture. RSC Advances, 2021, 11, 37842-37850.	1.7	4
495	Comparison of CO2 Separation Efficiency from Flue Gases Based on Commonly Used Methods and Materials. Materials, 2022, 15, 460.	1.3	19
496	A Facile Aqueous-Phase Synthesis Method for Small PdCu Alloy Nanocatalyst to Enhance Electrochemical CO ₂ Reduction Reactivity. SSRN Electronic Journal, 0, , .	0.4	0
497	Comparison of Carbonic Anhydrases for CO2 Sequestration. International Journal of Molecular Sciences, 2022, 23, 957.	1.8	12
498	Oxygen enrichment effects on CH ₄ -air turbulent flow characteristics in a coaxial swirl burner. Combustion Science and Technology, 2023, 195, 2340-2363.	1.2	3
499	State of the Art in Separation Processes for Alternative Working Fluids in Clean and Efficient Power Generation. Separations, 2022, 9, 14.	1.1	7
500	Processes for the production of acetylene in the XXth century. Main trends of their development within the paradigm of low-carbon economy of the future. Kataliz V Promyshlennosti, 2022, 22, 20-39.	0.2	0
501	Thermal conductivity of the ionic liquid [<scp>HMIm</scp>][<scp>Tf₂N</scp>] with compressed carbon dioxide. AICHE Journal, 2022, 68, .	1.8	5

#	Article	IF	Citations
502	ASPEN Plus \hat{A}^{\otimes} reassessment of efficiency penalties associated with a pulverised coal oxy-combustion power plant-A case study. Case Studies in Chemical and Environmental Engineering, 2022, 5, 100189.	2.9	0
503	Carbon membrane for the application in gas separation: recent development and prospects. , 2022, , $177-214$.		0
504	Functional Biochar Synergistic Solid/Liquid-Phase CO ₂ Capture: A Review. Energy & Energy & Fuels, 2022, 36, 2945-2970.	2.5	49
505	The Joule–Thomson effect of (CO2Â+ÂH2) binary system relevant to gas switching reforming with carbon capture and storage (CCS). Chinese Journal of Chemical Engineering, 2023, 54, 215-231.	1.7	3
506	Estimating mutual solubility of a CO ₂ in NaCl aqueous solution system using connectionist approaches. Petroleum Science and Technology, 0, , 1-21.	0.7	1
507	Trickle-Bed Bioreactors for Acetogenic H2/CO2 Conversion. Frontiers in Energy Research, 2022, 10, .	1.2	4
508	A novel carbon dioxide capture system for a cement plant based on waste heat utilization. Energy Conversion and Management, 2022, 257, 115426.	4.4	20
509	Compact High Efficiency and Zero-Emission Gas-Fired Power Plant with Oxy-Combustion and Carbon Capture. Energies, 2022, 15, 2590.	1.6	5
510	A techno-economic review on carbon capture, utilisation and storage systems for achieving a net-zero CO2 emissions future. Carbon Capture Science & Technology, 2022, 3, 100044.	4.9	131
511	Rapid Prototyping for the Formulation of Monolith and Membrane for CO $<$ sub $>$ 2 $<$ /sub $>$ Removal. Separation and Purification Reviews, 0, , 1-18.	2.8	1
512	Recent Advances in Small-Scale Carbon Capture Systems for Micro-Combined Heat and Power Applications. Energies, 2022, 15, 2938.	1.6	4
513	A Facile Aqueous-Phase Synthesis Method for Small PdCu Alloy Nanocatalysts to Enhance Electrochemical CO2 Reduction Reactivity. Journal of Alloys and Compounds, 2022, , 164990.	2.8	7
517	DMC-PID cascade control for MEA-based post-combustion CO2 capture process. Chemical Engineering Research and Design, 2022, 182, 701-713.	2.7	4
518	Experimental and density functional study of sulfur trioxide formation catalyzed by hematite in pressure oxy-combustion. Fuel, 2022, 323, 124433.	3.4	2
519	Application of MXenes for air purification, gas separation and storage: A review. Renewable and Sustainable Energy Reviews, 2022, 164, 112527.	8.2	42
520	SNG based energy storage systems with subsurface CO ₂ storage. Energy Advances, 2022, 1, 402-421.	1.4	4
521	An Experimental Study of No Reduction by Real Biogas Reburning at High Temperature Under Oxy-Fuel Complex Atmosphere. SSRN Electronic Journal, 0, , .	0.4	0
522	Experimental Investigation of the Effects of Fluidizing Gas on Copper–Manganese Mixed Oxide's Reactivity for Chemical Looping Combustion of CH ₄ . Industrial & Engineering Chemistry Research, 2022, 61, 7245-7254.	1.8	4

#	Article	IF	CITATIONS
523	Nanotechnology for the Remediation of Plastic Wastes. RSC Nanoscience and Nanotechnology, 2022, , $117-143$.	0.2	1
524	The Global Carbon Footprint and How New Carbon Mineralization Technologies Can Be Used to Reduce CO2 Emissions. ChemEngineering, 2022, 6, 44.	1.0	9
525	Modification of biomass-derived biochar: A practical approach towards development of sustainable CO2 adsorbent. Biomass Conversion and Biorefinery, 0, , .	2.9	12
526	Techno-economic comparison of optimized natural gas combined cycle power plants with CO2 capture. Energy, 2022, 255, 124617.	4.5	6
527	Negative Emission Power Plants: Thermodynamic Modeling and Evaluation of a Biomass-Based Integrated Gasification Solid Oxide Fuel Cell/Gas Turbine System for Power, Heat, and Biochar Co-Production—Part 1. Frontiers in Energy Research, 0, 10, .	1.2	2
528	Controlling the Solid Circulation Rate and Residence Time in Whole Loops of a 1.5 MW (sub) th (/sub) Chemical Looping Combustion Cold Model. Energy & Energy & 2022, 36, 9513-9528.	2.5	5
529	Porous Adsorption Materials for Carbon Dioxide Capture in Industrial Flue Gas. Frontiers in Chemistry, 0, 10 , .	1.8	20
530	Recent developments in <scp> CO ₂ </scp> capture, utilization, related materials, and challenges. International Journal of Energy Research, 2022, 46, 16241-16263.	2.2	14
531	Development of an Oxy-Fuel Combustion System in a Compression-Ignition Engine for Ultra-Low Emissions Powerplants Using CFD and Evolutionary Algorithms. Applied Sciences (Switzerland), 2022, 12, 7104.	1.3	5
532	Modelling of a novel near zero energy for a wastewater treatment plant with OXY-Biogas power cycle. Energy Conversion and Management, 2022, 267, 115926.	4.4	1
533	An experimental study of NO reduction by real biogas reburning at high temperature under oxy-fuel complex atmosphere. Fuel, 2022, 326, 124988.	3.4	2
534	Pyrolysis analysis of polyethylene terephthalate: effects of carrier gases (<scp>N₂</scp> ,) Tj ETQq1 I and Biotechnology, 2022, 97, 3395-3405.	0.78431 1.6	4 rgBT /Ove 6
535	Application of a Single Multilayer Perceptron Model to Predict the Solubility of CO2 in Different lonic Liquids for Gas Removal Processes. Processes, 2022, 10, 1686.	1.3	2
536	Recent advances on the modeling and optimization of CO2 capture processes. Computers and Chemical Engineering, 2022, 165, 107938.	2.0	9
537	Optimal design and operation of maritime energy systems based on renewable methanol and closed carbon cycles. Energy Conversion and Management, 2022, 269, 116064.	4.4	12
538	Advancements in carbon capture technologies: A review. Journal of Cleaner Production, 2022, 373, 133932.	4.6	51
539	Co2 Coverage Accelerates Oxygen Removal in Oxy-Combustion Systems. SSRN Electronic Journal, 0, , .	0.4	O
540	A brief overview of recent advancements in CO2 capture and valorization technologies. , 2022, , 1-16.		O

#	ARTICLE	IF	CITATIONS
541	Performance Assessment and Optimization on Supercritical Co2 Double-Path Recompression Coal-Fired Combined Heat and Power Plants with Mea-Based Post-Combustion Co2 Capture. SSRN Electronic Journal, 0, , .	0.4	0
542	The advancement of zero-emission natural gas power plants and their role in future energy supply. Computer Aided Chemical Engineering, 2022, , 1597-1602.	0.3	0
543	Acetylene Production Technologies in the 21st Century: Main Trends of Their Development in the Paradigm of Low-Carbon Economy of the Future. Catalysis in Industry, 2022, 14, 251-267.	0.3	0
544	Review of recent trends and various techniques for CO2 capture: Special emphasis on biphasic amine solvents. Fuel, 2023, 334, 126616.	3.4	35
545	Carbon Capture from Post-Combustion Flue Gas Using a State-Of-The-Art, Anti-Sublimation, Solid–Vapor Separation Unit. Processes, 2022, 10, 2406.	1.3	5
546	Hydrogen Oxidizing Bacteria as Novel Protein Source for Human Consumption: An Overview. Open Microbiology Journal, 2022, 16, .	0.2	1
547	Advanced nanomaterials for highly efficient CO ₂ photoreduction and photocatalytic hydrogen evolution. Science and Technology of Advanced Materials, 2022, 23, 866-894.	2.8	7
548	High-Selective CO2 Capture in Amine-Decorated Al-MOFs. Nanomaterials, 2022, 12, 4056.	1.9	5
549	Human Rights and Large-Scale Carbon Dioxide Removal: Potential Limits to BECCS and DACCS Deployment. Land, 2022, 11, 2153.	1.2	10
550	Perspectives in advance technologies/strategies for combating rising CO ₂ levels in the atmosphere via CO ₂ utilisation: A review. IOP Conference Series: Earth and Environmental Science, 2022, 1100, 012020.	0.2	1
551	CO2 capture enhancement by encapsulation of nanoparticles in metal–organic frameworks suspended in physical absorbents. Journal of CO2 Utilization, 2023, 69, 102397.	3.3	4
552	Ionic liquids: a tool for CO2 capture and reduced emission. , 2023, , 327-350.		1
553	Recent Advances in Poly(Ionic Liquid)-Based Membranes for CO2 Separation. Polymers, 2023, 15, 667.	2.0	1
554	Syngas purification by ionic liquids and DESs. , 2023, , 73-99.		0
555	Carbon Capture Materials in Post-Combustion: Adsorption and Absorption-Based Processes. Journal of Carbon Research, 2023, 9, 17.	1.4	4
556	Estimation of effective thermal conductivity and heat transfer coefficient of lithium orthosilicate pebble bed in carbon dioxide–air medium. Experimental Heat Transfer, 0, , 1-16.	2.3	4
557	River Project, An Innovative Way to Reduce Pollution on Riverboats. Lecture Notes in Civil Engineering, 2023, , 906-915.	0.3	0
558	Enhancing carbon capture efficiency of zeolite-embedded polyether sulfone mixed-matrix membranes via annealing process. Journal of Cleaner Production, 2023, 399, 136617.	4.6	6

#	ARTICLE	IF	Citations
559	Current status of carbon capture, utilization, and storage technologies in the global economy: A survey of technical assessment. Fuel, 2023, 342, 127776.	3.4	57
560	A review of chemical looping combustion technology: Fundamentals, and development of natural, industrial waste, and synthetic oxygen carriers. Fuel, 2023, 341, 127626.	3.4	33
561	Experimental and kinetic study of N2O thermal decomposition in pressurized oxy-combustion. Fuel, 2023, 346, 128323.	3.4	1
562	Process synthesis for amine-based CO2 capture from combined cycle gas turbine power plant. Energy, 2023, 274, 127391.	4.5	9
563	CO ₂ coverage on Pd catalysts accelerates oxygen removal in oxy-combustion systems. Physical Chemistry Chemical Physics, 2023, 25, 6527-6536.	1.3	0
564	Hydrogen production from biomass gasification with carbon capture and storage., 2023,, 197-221.		0
565	Experimental Study on Mineral Dissolution and Carbonation Efficiency Applied to pH-Swing Mineral Carbonation for Improved CO2 Sequestration. Energies, 2023, 16, 2449.	1.6	7
566	Experimental, modeling and RSM optimization of CO2 loading for an aqueous blend of diethylenetriamine and 3-dimethyl amino-1-propanol. Korean Journal of Chemical Engineering, 2023, 40, 1151-1167.	1.2	1
567	Cost and Life Cycle Emissions of Ethanol Produced with an Oxyfuel Boiler and Carbon Capture and Storage. Environmental Science & Environmental Science	4.6	4
568	Leveraging the bioeconomy for carbon drawdown. Green Chemistry, 2023, 25, 2930-2957.	4.6	11
569	Combining renewable sources towards negative carbon emission hydrogen. International Journal of Hydrogen Energy, 2023, , .	3.8	1
571	Properties of interfaces between metal–organic frameworks and ionic liquids. , 2024, , 776-790.		O
577	Efficacy of MXene-Based Materials in the Removal of Gases. , 2023, , 207-228.		0
578	Solid-state reaction process for metal oxide nanostructures. , 2023, , 77-94.		0
605	Catalytic processes for fuels production from CO2-rich streams: Opportunities for industrial flue gases upgrading., 2024,, 93-118.		0
612	Nanomaterials for carbon capture and their conversion to useful products for sustainable energy production., 2024,, 369-395.		0
614	Surface modification of metal-organic frameworks and their applications for the gas adsorption. , 2024, , 961-986.		0