M Mercedes Maroto-Valer

List of Publications by Year
in descending order

209	11,543	38742 50	32842 100
papers	citations	h-index	g-index

214	214	214	11495
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An overview of current status of carbon dioxide capture and storage technologies. Renewable and Sustainable Energy Reviews, 2014, 39, 426-443.	16.4	2,253
2	Review of material design and reactor engineering on TiO2 photocatalysis for CO2 reduction. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2015, 24, 16-42.	11.6	762
3	A review of mineral carbonation technologies to sequester CO₂. Chemical Society Reviews, 2014, 43, 8049-8080.	38.1	677
4	Data-driven design of metalâ€“organic frameworks for wet flue gas CO2 capture. Nature, 2019, 576, 253-256.	27.8	438
5	CO2 capture by activated and impregnated anthracites. Fuel Processing Technology, 2005, 86, 1487-1502.	7.2	259
6	Activation of magnesium rich minerals as carbonation feedstock materials for CO2 sequestration. Fuel Processing Technology, 2005, 86, 1627-1645.	7.2	212
7	Analysis of mercury species present during coal combustion by thermal desorption. Fuel, 2010, 89, 629-634.	6.4	185
8	Novel lithium-based sorbents from fly ashes for CO2 capture at high temperatures. International Journal of Greenhouse Gas Control, 2010, 4, 623-629.	4.6	167
9	Sorbents for CO2 capture from high carbon fly ashes. Waste Management, 2008, 28, 2320-2328.	7.4	165
10	Carbon sequestration using brine of adjusted pH to form mineral carbonates. Fuel Processing Technology, 2005, 86, 1599-1614.	7.2	138
11	Dissolution of serpentine using recyclable ammonium salts for CO2 mineral carbonation. Fuel, 2011, 90, 1229-1237.	6.4	134
12	Photocatalytic CO2 reduction using an internally illuminated monolith photoreactor. Energy and Environmental Science, 2011, 4, 1487.	30.8	131
13	Waste materials for carbon capture and storage by mineralisation (CCSM) â€“ A UK perspective. Applied Energy, 2012, 99, 545-554.	10.1	126
14	Development of adsorbents for CO₂ capture from waste materials: a review. , 2012, 2, 20-35.		120
15	Mercury Capture by Distinct Fly Ash Carbon Forms. Energy & Fuels, 2000, 14, 224-226.	5.1	114
16	Status and outlook of solar energy use in Pakistan. Renewable and Sustainable Energy Reviews, 2003, 7, 501-514.	16.4	108
17	Evaluation of reaction variables in the dissolution of serpentine for mineral carbonation. Fuel, 2007, 86, 273-281.	6.4	108
18	CO2 adsorption performance of amino-functionalized SBA-15 under post-combustion conditions. International Journal of Greenhouse Gas Control, 2013, 17, 366-375.	4.6	107

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19	On the impact of Cu dispersion on CO2 photoreduction over Cu/TiO2. Catalysis Communications, 2012, 25, 78-82.	3.3	105
20	Characterization of differing forms of unburned carbon present in fly ash separated by density gradient centrifugation. Fuel, 2001, 80, 795-800.	6.4	102
21	Post-processing pathways in carbon capture and storage by mineral carbonation (CCSM) towards the introduction of carbon neutral materials. Energy and Environmental Science, 2012, 5, 7781.	30.8	101
22	Effect of porous structure and surface functionality on the mercury capacity of a fly ash carbon and its activated sample. Fuel, 2005, 84, 105-108.	6.4	97
23	Integration of CO₂ Capture and Mineral Carbonation by Using Recyclable Ammonium Salts. ChemSusChem, 2011, 4, 1291-1300.	6.8	97
24	Review and Analysis of CO₂ Photoreduction Kinetics. ACS Sustainable Chemistry and Engineering, 2020, 8, 4677-4692.	6.7	94
25	Solid state13C NMR investigation of lipid ligands in V-amylose inclusion complexes. Carbohydrate Polymers, 1998, 36, 225-237.	10.2	93
26	Degradation of amine-based solvents in CO₂capture process by chemical absorption. , 2014, 4, 707-733.		91
27	Transition metal oxide based TiO2 nanoparticles for visible light induced CO2 photoreduction. Applied Catalysis A: General, 2015, 502, 114-121.	4.3	90
28	Speciation of mercury in fly ashes by temperature programmed decomposition. Fuel Processing Technology, 2011, 92, 707-711.	7.2	89
29	Photoreduction of CO2 using copper-decorated TiO2 nanorod films with localized surface plasmon behavior. Chemical Physics Letters, 2012, 531, 149-154.	2.6	88
30	Solar carbon fuel via photoelectrochemistry. Catalysis Today, 2018, 317, 56-75.	4.4	87
31	Performance comparison of CO2 conversion in slurry and monolith photoreactors using Pd and Rh-TiO2 catalyst under ultraviolet irradiation. Applied Catalysis B: Environmental, 2012, 126, 172-179.	20.2	82
32	Thermal degradation behavior of rigid polyurethane foams prepared with different fire retardant concentrations and blowing agents. Polymer, 2002, 43, 6471-6479.	3.8	81
33	Mineral carbonation from metal wastes: Effect of solid to liquid ratio on the efficiency and characterization of carbonated products. Applied Energy, 2014, 113, 515-523.	10.1	79
34	Enhancing Mg extraction from lizardite-rich serpentine for CO2 mineral sequestration. Minerals Engineering, 2013, 49, 135-144.	4.3	76
35	Development of sodium/lithium/fly ash sorbents for high temperature post-combustion CO 2 capture. Applied Energy, 2015, 156, 197-206.	10.1	72
36	A model of carbon dioxide dissolution andÂmineralÂcarbonationÂkinetics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 1265-1290.	2.1	70

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37	Mercury policy and regulations for coal-fired power plants. Environmental Science and Pollution Research, 2012, 19, 1084-1096.	5.3	67
38	Maskless, rapid manufacturing of glass microfluidic devices using a picosecond pulsed laser. Scientific Reports, 2019, 9, 20215.	3.3	67
39	Carbonation curing for wollastonite-Portland cementitious materials: CO2 sequestration potential and feasibility assessment. Journal of Cleaner Production, 2019, 211, 830-841.	9.3	67
40	Quantitative 13C NMR study of structural variations within the vitrinite and inertinite maceral groups for a semifusinite-rich bituminous coal. Fuel, 1998, 77, 805-813.	6.4	64
41	Novel Separation of the Differing Forms of Unburned Carbon Present in Fly Ash Using Density Gradient Centrifugation. Energy & Fuels, 1999, 13, 947-953.	5.1	64
42	Synthesis, characterization and visible light photocatalytic activity of metal based TiO2 monoliths for CO2 reduction. Chemical Engineering Journal, 2016, 283, 1244-1253.	12.7	64
43	Life-cycle assessment of emerging CO2 mineral carbonation-cured concrete blocks: Comparative analysis of CO2 reduction potential and optimization of environmental impacts. Journal of Cleaner Production, 2019, 241, 118359.	9.3	64
44	Mercury speciation in gypsums produced from flue gas desulfurization by temperature programmed decomposition. Fuel, 2010, 89, 2157-2159.	6.4	63
45	Dissolution of steel slag and recycled concrete aggregate in ammonium bisulphate for CO2 mineral carbonation. Fuel Processing Technology, 2013, 113, 114-122.	7.2	62
46	Systematic study of sol-gel parameters on TiO2 coating for CO2 photoreduction. Applied Catalysis B: Environmental, 2018, 238, 136-146.	20.2	59
47	Effect of adsorbate polarity on thermodesorption profiles from oxidized and metal-impregnated activated carbons. Carbon, 2004, 42, 2655-2659.	10.3	58
48	Carbon dioxide capture and storage by pH swing aqueous mineralisation using a mixture of ammonium salts and antigorite source. Fuel, 2013, 114, 153-161.	6.4	58
49	Role of catalyst carriers in CO2 photoreduction over nanocrystalline nickel loaded TiO2-based photocatalysts. Journal of Catalysis, 2014, 309, 300-308.	6.2	58
50	Copper based TiO₂ honeycomb monoliths for CO₂ photoreduction. Catalysis Science and Technology, 2014, 4, 1631-1637.	4.1	57
51	Carbon stabilised saponite supported transition metal-alloy catalysts for chemical CO2 utilisation via reverse water-gas shift reaction. Applied Catalysis B: Environmental, 2020, 261, 118241.	20.2	56
52	Effect of SCR operation variables on mercury speciation. Chemical Engineering Journal, 2012, 198-199, 87-94.	12.7	53
53	Optimization of Li₄SiO₄ synthesis conditions by a solid state method for maximum CO₂ capture at high temperature. Journal of Materials Chemistry A, 2018, 6, 3249-3257.	10.3	53
54	Optimization of carbon dioxide capture and storage with mineralisation using recyclable ammonium salts. Energy, 2013, 51, 431-438.	8.8	50

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55	Silicate rock dissolution by ammonium bisulphate for pH swing mineral CO2 sequestration. Fuel Processing Technology, 2014, 120, 128-135.	7.2	50
56	Photocatalytic conversion of CO2 to hydrocarbons by light-harvesting complex assisted Rh-doped TiO2 photocatalyst. Journal of CO2 Utilization, 2014, 5, 33-40.	6.8	49
57	A pH-differential dual-electrolyte microfluidic electrochemical cells for CO2 utilization. Renewable Energy, 2016, 95, 277-285.	8.9	49
58	Physical cleaning of high carbon fly ash. Fuel Processing Technology, 2002, 76, 11-21.	7.2	47
59	CO₂ Capture at High Temperature Using Fly Ash-Derived Sodium Silicates. Industrial & Engineering Chemistry Research, 2016, 55, 4080-4088.	3.7	46
60	A comparison of devices using thermal desorption for mercury speciation in solids. Talanta, 2016, 150, 272-277.	5.5	46
61	Quantitative solid-state 13C n.m.r. measurements on cokes, chars and coal tar pitch fractions. Fuel, 1996, 75, 1721-1726.	6.4	43
62	Computational and experimental studies of mercury adsorption on unburned carbon present in fly ash. Carbon, 2012, 50, 1913-1924.	10.3	43
63	Effects of titania based catalysts on in-situ pyrolysis of Pavlova microalgae. Fuel Processing Technology, 2017, 166, 291-298.	7.2	43
64	Preparation of a highly microporous carbon from a carpet material and its application as CO2 sorbent. Fuel Processing Technology, 2011, 92, 322-329.	7.2	42
65	Rapid Laser Manufacturing of Microfluidic Devices from Glass Substrates. Micromachines, 2018, 9, 409.	2.9	42
66	In-Situ1H NMR Investigation of Particle Size, Mild Oxidation, and Heating Regime Effects on Plasticity Development during Coal Carbonizationâ€. Energy & Fuels, 1997, 11, 236-244.	5.1	41
67	A review of nanostructured non-titania photocatalysts and hole scavenging agents for CO₂ photoreduction processes. Journal of Materials Chemistry A, 2019, 7, 9368-9385.	10.3	41
68	Investigation of the pH effect of a typical host rock and buffer solution on CO2 sequestration in synthetic brines. Fuel Processing Technology, 2010, 91, 1321-1329.	7.2	40
69	Ceria promoted deoxygenation and denitrogenation of Thalassiosira weissflogii and its model compounds by catalytic in-situ pyrolysis. Bioresource Technology, 2016, 208, 140-148.	9.6	39
70	Life cycle environmental analysis of â€˜drop inâ€™ alternative aviation fuels: a review. Sustainable Energy and Fuels, 2020, 4, 3229-3263.	4.9	39
71	Verification of the linear relationship between carbon aromaticities and H/C ratios for bituminous coals. Fuel, 1998, 77, 783-785.	6.4	38
72	Studies of pH buffer systems to promote carbonate formation for CO2 sequestration in brines. Fuel Processing Technology, 2012, 98, 6-13.	7.2	38

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73	A decision support system for waste heat recovery and energy efficiency improvement in data centres. Applied Energy, 2019, 250, 1217-1224.	10.1	38
74	Comparison of High-Unburned-Carbon Fly Ashes from Different Combustor Types and Their Steam Activated Products. Energy & Fuels, 2003, 17, 369-377.	5.1	37
75	Parameters affecting mineral trapping of CO₂ sequestration in brines. , 2011, 1, 211-222.		37
76	Sequestration of non-pure carbon dioxide streams in iron oxyhydroxide-containing saline repositories. International Journal of Greenhouse Gas Control, 2012, 7, 89-97.	4.6	37
77	Upscaling smart local energy systems: A review of technical barriers. Renewable and Sustainable Energy Reviews, 2020, 131, 110020.	16.4	37
78	Relationship between carbon aromaticities and HC ratios for bituminous coals. Fuel, 1994, 73, 1926-1928.	6.4	36
79	Thermal regeneration of activated carbons saturated with ortho- and meta-chlorophenols. Thermochimica Acta, 2006, 444, 148-156.	2.7	36
80	Characterization of Partially Carbonized Coals by Solid-State13C NMR and Optical Microscopy. Energy & Fuels, 1998, 12, 833-842.	5.1	35
81	Environmental consequences of potential leaks of CO2 in soil. Energy Procedia, 2011, 4, 3224-3230.	1.8	34
82	CO2 desorption via microwave heating for post-combustion carbon capture. Microporous and Mesoporous Materials, 2014, 197, 288-290.	4.4	34
83	Review of Microfluidic Devices and Imaging Techniques for Fluid Flow Study in Porous Geomaterials. Sensors, 2020, 20, 4030.	3.8	33
84	Study of mercury in by-products from a Dutch co-combustion power station. Journal of Hazardous Materials, 2010, 174, 28-33.	12.4	32
85	Integration of CO2 capture and storage based on pH-swing mineral carbonation using recyclable ammonium salts. Energy Procedia, 2011, 4, 4930-4936.	1.8	32
86	Turning CO2 into Valuable Chemicals. Energy Procedia, 2013, 37, 6704-6709.	1.8	32
87	Use of small-amplitude oscillatory shear rheometry to study the flow properties of pure and potassium-doped Li2ZrO3 sorbents during the sorption of CO2 at high temperatures. Separation and Purification Technology, 2010, 73, 415-420.	7.9	31
88	The influence of the precursor and synthesis method on the CO2 capture capacity of carpet waste-based sorbents. Journal of Environmental Management, 2011, 92, 2810-2817.	7.8	30
89	Potassium-based sorbents from fly ash for high-temperature CO2 capture. Environmental Science and Pollution Research, 2016, 23, 22242-22252.	5.3	30
90	Investigation of Carbon Sequestration via Induced Calcite Formation in Natural Gas Well Brine. Energy & Fuels, 2006, 20, 172-179.	5.1	29

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91	CO₂solubility measurements in brine under reservoir conditions: A comparison of experimental and geochemical modeling methods. , 2016, 6, 197-217.		29
92	A microfluidic photoelectrochemical cell for solar-driven CO₂ conversion into liquid fuels with CuO-based photocathodes. Faraday Discussions, 2019, 215, 329-344.	3.2	28
93	Modeling of all-porous solid oxide fuel cells with a focus on the electrolyte porosity design. Applied Energy, 2019, 235, 602-611.	10.1	28
94	Novel Amine-impregnated Mesostructured Silica Materials for CO2 Capture. Energy Procedia, 2017, 114, 2252-2258.	1.8	27
95	Continuous flow-based laser-assisted plasmonic heating: A new approach for photothermal energy conversion and utilization. Applied Energy, 2019, 247, 517-524.	10.1	27
96	Quantification by in situ1H n.m.r. of the contributions from pyridine-extractables and metaplast to the generation of coal plasticity. Fuel, 1997, 76, 1301-1308.	6.4	25
97	Solid state 13C NMR and high temperature 1H NMR determination of bulk structural properties for mesophase-containing semi-cokes prepared from coal tar pitch. Carbon, 1998, 36, 1043-1050.	10.3	25
98	In situ 1H NMR study of the fluidity enhancement for a bituminous coal by coal tar pitch and a hydrogen-donor liquefaction residue. Fuel, 1998, 77, 921-926.	6.4	25
99	Photocatalytic reduction of CO 2 by CO co-feed combined with photocatalytic water splitting in a novel twin reactor. Energy Conversion and Management, 2016, 116, 184-193.	9.2	25
100	Study of design parameters affecting the performance of CO2 purification units in oxy-fuel combustion. International Journal of Greenhouse Gas Control, 2013, 12, 441-449.	4.6	24
101	Raspberryâ€Like Microspheres of Coreâ€“Shell Cr₂O₃@TiO₂ Nanoparticles for CO₂ Photoreduction. ChemSusChem, 2019, 12, 5246-5252.	6.8	23
102	Low carbon fuel production from combined solid oxide CO2 co-electrolysis and Fischer-Tropsch synthesis system: A modelling study. Applied Energy, 2019, 242, 911-918.	10.1	23
103	Modeling photocatalytic conversion of carbon dioxide in bubbling twin reactor. Energy Conversion and Management, 2017, 149, 514-525.	9.2	22
104	The Role of Semifusinite in Plasticity Development for a Coking Coal. Energy & Fuels, 1998, 12, 1040-1046.	5.1	21
105	The variation in composition of ultramafic rocks and the effect on their suitability for carbon dioxide sequestration by mineralization following acid leaching. , 2014, 4, 440-451.		21
106	Experimental investigation of CO2-brine-calcite interactions under reservoir conditions. Fuel Processing Technology, 2018, 169, 122-131.	7.2	21
107	Is Panarea Island (Italy) a valid and costâ€effective natural laboratory for the development of detection and monitoring techniques for submarine CO₂ seepage?. , 2011, 1, 200-210.		20
108	Layered Double Hydroxides-Based Mixed Metal Oxides: Development of Novel Structured Sorbents for CO₂Capture Applications. ACS Applied Materials & Interfaces, 2021, 13, 11805-11813.	8.0	20

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109	Particle carbonation kinetics models and activation methods under mild environment: The case of calcium silicate. Chemical Engineering Journal, 2021, 423, 130157.	12.7	20
110	Novel Na-silicates CO2 Sorbents from Fly Ash. Energy Procedia, 2014, 63, 739-744.	1.8	19
111	Systematic study of TiO₂/ZnO mixed metal oxides for CO₂ photoreduction. RSC Advances, 2019, 9, 21660-21666.	3.6	19
112	Novel Porous Carbons Derived from Coal Tar Rejects: Assessment of the Role of Pore Texture in CO₂ Capture under Realistic Postcombustion Operating Temperatures. ACS Applied Materials & Interfaces, 2019, 11, 36789-36799.	8.0	19
113	CO2 capture by novel hierarchical activated ordered micro-mesoporous carbons derived from low value coal tar products. Microporous and Mesoporous Materials, 2021, 318, 110986.	4.4	19
114	Role of active sites in the steam activation of high unburned carbon fly ashes. Fuel, 2008, 87, 2598-2605.	6.4	18
115	Photocatalytic reduction of CO2 over Bi2WO6 in a continuous-flow differential photoreactor: Investigation of operational parameters. Journal of Environmental Chemical Engineering, 2021, 9, 105097.	6.7	18
116	Comparative study of CO2 photoreduction using different conformations of CuO photocatalyst: Powder, coating on mesh and thin film. Journal of CO2 Utilization, 2021, 50, 101588.	6.8	18
117	Performance of Coriolis flowmeters in CO2 pipelines with pre-combustion, post-combustion and oxyfuel gas mixtures in carbon capture and storage. International Journal of Greenhouse Gas Control, 2016, 54, 297-308.	4.6	17
118	Apparatus and method for calibrating a Coriolis mass flow meter for carbon dioxide at pressure and temperature conditions represented to CCS pipeline operations. Applied Energy, 2016, 165, 759-764.	10.1	17
119	Speciation, behaviour, and fate of mercury under oxy-fuel combustion conditions. Environmental Research, 2016, 145, 154-161.	7.5	17
120	Carbon dioxide sequestration using NaHSO 4 and NaOH: A dissolution and carbonation optimisation study. Journal of Environmental Management, 2017, 189, 84-97.	7.8	17
121	Synthesis of TiO2â˜'x/W18O49 hollow double-shell and coreâ€“shell microspheres for CO2 photoreduction under visible light. Chemical Communications, 2020, 56, 12150-12153.	4.1	17
122	Development of regenerable sorbents from abundant wastes for capture of CO2. Energy Procedia, 2011, 4, 1118-1124.	1.8	16
123	High-Temperature CO₂ Capture by Li₄SiO₄ Sorbents: Effect of CO₂ Concentration and Cyclic Performance under Representative Conditions. Industrial & Engineering Chemistry Research, 2018, 57, 13802-13810.	3.7	16
124	A stakeholdersâ€™ participatory approach to multi-criteria assessment of sustainable aviation fuels production pathways. International Journal of Production Economics, 2021, 238, 108156.	8.9	16
125	Catalytic effects of inorganic compounds on the development of surface areas of fly ash carbon during steam activation. Fuel, 2010, 89, 3436-3441.	6.4	15
126	Accelerated MEA Degradation Study in Hybrid CO2 Capture Systems. Energy Procedia, 2014, 63, 745-749.	1.8	15

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127	Process Integration of Post-combustion CO2 Capture with Li4SiO4/Li2CO3 Looping in a NGCC Plant. Energy Procedia, 2017, 114, 2611-2617.	1.8	15
128	Close Correspondence between Carbon Skeletal Parameters of Kerogens and Their Hydropyrolysis Oils. Energy & Fuels, 1997, 11, 539-545.	5.1	14
129	Monitoring techniques of a natural analogue for sub-seabed CO2 leakages. Energy Procedia, 2011, 4, 3262-3268.	1.8	13
130	Investigation of the effect of brine composition and pH buffer on CO2 -brine sequestration. Energy Procedia, 2011, 4, 4503-4507.	1.8	13
131	Speciation of Hg retained in gasification biomass chars by temperature-programmed decomposition. Fuel Processing Technology, 2014, 126, 1-4.	7.2	13
132	Utilisation Of Microwave Energy for CO2 Desorption in Post-combustion Carbon Capture Using Solid Sorbents. Energy Procedia, 2014, 63, 2109-2115.	1.8	13
133	Investigation of process parameters assessment via design of experiments for CO2 photoreduction in two photoreactors. Journal of CO2 Utilization, 2020, 36, 25-32.	6.8	13
134	Alkali modified P25 with enhanced CO₂ adsorption for CO₂ photoreduction. RSC Advances, 2020, 10, 27989-27994.	3.6	13
135	Unusual Speciation and Retention of Hg at a Coal-Fired Power Plant. Environmental Science & Technology, 2012, 46, 7890-7897.	10.0	12
136	The effect of the layer-interlayer chemistry of LDHs on developing high temperature carbon capture materials. Dalton Transactions, 2020, 49, 923-931.	3.3	12
137	Advanced High-Temperature CO₂ Sorbents with Improved Long-Term Cycling Stability. ACS Applied Materials & Interfaces, 2020, 12, 33765-33774.	8.0	12
138	An Investigation into CO2â€“Brineâ€“Cementâ€“Reservoir Rock Interactions for Wellbore Integrity in CO2 Geological Storage. Energies, 2021, 14, 5033.	3.1	12
139	Understanding the role of wettability distribution on pore-filling and displacement patterns in a homogeneous structure via quasi 3D pore-scale modelling. Scientific Reports, 2021, 11, 17847.	3.3	12
140	The Impact of Wettability on Dynamic Fluid Connectivity and Flow Transport Kinetics in Porous Media. Water Resources Research, 2022, 58, .	4.2	12
141	Experimental Studies on Mineral Sequestration of CO2 with Buffer Solution and Fly Ash in Brines. Energy Procedia, 2013, 37, 5870-5874.	1.8	11
142	Laboratory experiments and field study for the detection and monitoring of potential seepage from CO2 storage sites. Applied Geochemistry, 2013, 30, 105-113.	3.0	11
143	Thermodynamic Analysis of the Efficiency of Photoelectrochemical CO2 Reduction to Ethanol. Energy Procedia, 2019, 158, 767-772.	1.8	11
144	Modelling of a hybrid system for on-site power generation from solar fuels. Applied Energy, 2019, 240, 709-718.	10.1	11

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145	Acetate intercalated Mgâ€“Al layered double hydroxides (LDHs) through modified amide hydrolysis: a new route to synthesize novel mixed metal oxides (MMOs) for CO₂capture. Dalton Transactions, 2021, 50, 7474-7483.	3.3	11
146	Micro-Silica for High-End Application from Carbon Capture and Storage by Mineralisation. Key Engineering Materials, 2012, 517, 737-744.	0.4	10
147	A novel high pressureâ€high temperature experimental apparatus to study sequestration of CO₂â€SO₂ mixtures in geological formations. , 2014, 4, 544-554.		10
148	The potential leaching and mobilization of trace elements from FGD-gypsum of a coal-fired power plant under water re-circulation conditions. Journal of Environmental Sciences, 2015, 32, 72-80.	6.1	10
149	Density of carbon dioxide with impurities by Coriolis flow meter, oscillation-type densitometer and equations of state. Applied Energy, 2018, 212, 162-174.	10.1	10
150	Layered Double Hydroxide (LDH)â€Derived Mixed Metal Oxides (MMOs): A Systematic Crystalâ€Chemical Approach to Investigating the Chemical Composition and its Effect on High Temperature CO₂ capture.. ChemistrySelect, 2020, 5, 5587-5594.	1.5	10
151	CO2 Sequestration Using a Novel Na-salts pH Swing Mineral Carbonation Process. Energy Procedia, 2014, 63, 5897-5903.	1.8	9
152	Influence of a CO2 long term exposure on the mobilisation and speciation of metals in soils. Chemie Der Erde, 2015, 75, 475-482.	2.0	9
153	A framework for waste heat energy recovery within data centre. Energy Procedia, 2019, 158, 3788-3794.	1.8	9
154	Production of CH4 and CO on CuxO and NixOy coatings through CO2 photoreduction. Journal of Environmental Chemical Engineering, 2022, 10, 108199.	6.7	9
155	Experimental and simulation studies of iron oxides for geochemical fixation of CO2â€“SO2 gas mixtures. Energy Procedia, 2011, 4, 5108-5113.	1.8	8
156	Review of flowmeters for carbon dioxide transport in CCS applications. , 2017, 7, 10-28.		8
157	Photo-generation of cyclic carbonates using hyper-branched Ruâ€“TiO₂. Faraday Discussions, 2019, 215, 407-421.	3.2	8
158	Simulation of CO2 photoreduction in a twin reactor by multiphysics models. Chemical Engineering Research and Design, 2021, 171, 125-138.	5.6	8
159	Coriolis Metering Technology for CO2 Transportation for Carbon Capture and Storage. Energy Procedia, 2014, 63, 2723-2726.	1.8	7
160	Polymeric Templating Synthesis of Anatase TiO₂ Nanoparticles from Lowâ€Cost Inorganic Titanium Sources. ChemistrySelect, 2017, 2, 702-706.	1.5	7
161	Investigation of an interlaced laser beam scanning method for ultrashort pulse laser micromachining applications. Journal of Materials Processing Technology, 2020, 285, 116807.	6.3	7
162	Mass and Energy Balance of NH4-salts pH Swing Mineral Carbonation Process Using Steel Slag. Energy Procedia, 2014, 63, 6544-6547.	1.8	6

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163	Understanding the importance of iron speciation in oil-field brine pH for CO2 mineral sequestration. Journal of CO2 Utilization, 2016, 16, 78-85.	6.8	6
164	The Fiscal Metering of Transported CO2-Rich Mixtures in CCS Operations. Energy Procedia, 2017, 114, 6766-6777.	1.8	6
165	Modeling of a combined CH4-assisted solid oxide co-electrolysis and Fischer-Tropsch synthesis system for low-carbon fuel production. Energy Procedia, 2019, 158, 1666-1671.	1.8	6
166	Investigation of carbon dioxide photoreduction process in a laboratory-scale photoreactor by computational fluid dynamic and reaction kinetic modeling. Frontiers of Chemical Science and Engineering, 2022, 16, 1149-1163.	4.4	6
167	Underground carbon dioxide storage in saline formations. Proceedings of Institution of Civil Engineers: Waste and Resource Management, 2010, 163, 77-88.	0.8	5
168	Overview of carbon dioxide (CO2) capture and storage technology. , 2010, , 1-24.		5
169	Study of Mineral Trapping of CO2 and Seal Leakage Mitigation. Energy Procedia, 2014, 63, 5490-5494.	1.8	5
170	Carbon dioxide capture and storage by pH swing mineralization using recyclable ammonium salts and flue gas mixtures. , 2015, 5, 389-402.		5
171	Effect of Limestone and Buffer Solution in the Aqueous Speciation and pH of Brines for CO2 Sequestration. Energy Procedia, 2017, 114, 4865-4871.	1.8	5
172	A Microfluidic Reactor for Solar Fuel Production from Photocatalytic CO 2 Reduction. Energy Procedia, 2017, 142, 501-506.	1.8	5
173	Conceptual Design for Integrating Lithium-Based Carbon Capture Looping Systems into Natural Gas Combined Cycle Power Plants. Industrial & Engineering Chemistry Research, 2019, 58, 14975-14990.	3.7	5
174	Investigation of CO₂ Photoreduction in an Annular Fluidized Bed Photoreactor by MP-PIC Simulation. Industrial & Engineering Chemistry Research, 2022, 61, 3123-3136.	3.7	5
175	Design and use of a laboratory rig for the study of the chemicalâ€physical effects on aquatic environments of potential seepage from CO₂ storage sites. , 2012, 2, 136-143.		4
176	Laser Induced Plasmonic Heating with Au Decorated TiO2 Nanoparticles. Energy Procedia, 2019, 158, 5647-5652.	1.8	4
177	Interlaced Laser Beam Scanning: A Method Enabling an Increase in the Throughput of Ultrafast Laser Machining of Borosilicate Glass. Journal of Manufacturing and Materials Processing, 2019, 3, 14.	2.2	4
178	Theoretical Efficiency Limits of Photoelectrochemical CO₂ Reduction: A Routeâ€Dependent Thermodynamic Analysis. ChemPhysChem, 2020, 21, 232-239.	2.1	4
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