Biophysical and economic limits to negative CO2 emissi

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Citation Report

#	Article	IF	Citations
2	The Land Use Model Intercomparison Project (LUMIP) contribution to CMIP6: rationale and experimental design. Geoscientific Model Development, 2016, 9, 2973-2998.	1.3	343
3	Emissions reduction: Scrutinize CO2 removal methods. Nature, 2016, 530, 153-155.	13.7	244
4	Expert assessment concludes negative emissions scenarios may not deliver. Environmental Research Letters, 2016, 11, 095003.	2.2	117
5	2 Â°C and SDGs: united they stand, divided they fall?. Environmental Research Letters, 2016, 11, 034022.	2.2	143
6	Soil carbon sequestration and biochar as negative emission technologies. Global Change Biology, 2016, 22, 1315-1324.	4.2	577
7	In the wake of Paris Agreement, scientists must embrace new directions for climate change research. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7287-7290.	3.3	79
8	Afforestation to mitigate climate change: impacts on food prices under consideration of albedo effects. Environmental Research Letters, 2016, 11, 085001.	2.2	74
9	Research priorities for negative emissions. Environmental Research Letters, 2016, 11, 115007.	2.2	138
10	Unraveling the genetic basis of xylose consumption in engineered Saccharomyces cerevisiae strains. Scientific Reports, 2016, 6, 38676.	1.6	57
11	Delayâ€induced rebounds in CO₂ emissions and critical timeâ€scales to meet global warming targets. Earth's Future, 2016, 4, 636-643.	2.4	17
12	The carbon cycle in a changing climate. Physics Today, 2016, 69, 48-54.	0.3	3
13	Impacts devalue the potential of large-scale terrestrial CO ₂ removal through biomass plantations. Environmental Research Letters, 2016, 11, 095010.	2.2	19
14	Simulating the Earth system response to negative emissions. Environmental Research Letters, 2016, 11, 095012.	2.2	98
15	Implications of the Paris agreement for the ocean. Nature Climate Change, 2016, 6, 732-735.	8.1	50
16	Optimal scale of carbon-negative energy facilities. Applied Energy, 2016, 170, 437-444.	5.1	36
17	The cumulative carbon budget and its implications. Oxford Review of Economic Policy, 2016, 32, 323-342.	1.0	47
18	The 'best available science' to inform 1.5 Â°C policy choices. Nature Climate Change, 2016, 6, 646-649.	8.1	88
19	Cooperation and discord in global climate policy. Nature Climate Change, 2016, 6, 570-575.	8.1	229

#	Article	IF	Citations
20	Can CCS and NET enable the continued use of fossil carbon fuels after CoP21?. Oxford Review of Economic Policy, 2016, 32, 304-322.	1.0	13
21	The Paris Agreement and the inherent inconsistency of climate policymaking. Wiley Interdisciplinary Reviews: Climate Change, 2016, 7, 790-797.	3.6	80
22	Preliminary assessment of the potential for, and limitations to, terrestrial negative emission technologies in the UK. Environmental Sciences: Processes and Impacts, 2016, 18, 1400-1405.	1.7	45
23	The world's biggest gamble. Earth's Future, 2016, 4, 465-470.	2.4	70
25	Radiative human body cooling by nanoporous polyethylene textile. Science, 2016, 353, 1019-1023.	6.0	764
26	Rapid scale-up of negative emissions technologies: social barriers and social implications. Climatic Change, 2016, 139, 155-167.	1.7	103
27	Substantial global carbon uptake by cement carbonation. Nature Geoscience, 2016, 9, 880-883.	5.4	355
28	Algal food and fuel coproduction can mitigate greenhouse gas emissions while improving land and water-use efficiency. Environmental Research Letters, 2016, 11, 114006.	2.2	44
29	Science and policy characteristics of the Paris Agreement temperature goal. Nature Climate Change, 2016, 6, 827-835.	8.1	536
30	The trouble with negative emissions. Science, 2016, 354, 182-183.	6.0	915
31	The promise of negative emissionsâ€"Response. Science, 2016, 354, 714-715.	6.0	6
32	Optimal bioenergy power generation for climate change mitigation with or without carbon sequestration. Nature Communications, 2016, 7, 13160.	5.8	99
33	Global economic consequences of deploying bioenergy with carbon capture and storage (BECCS). Environmental Research Letters, 2016, 11, 095004.	2.2	97
34	The implications of COP21 for our future climate. Public Health Reviews, 2016, 37, 29.	1.3	2
35	Using the Suess effect on the stable carbon isotope to distinguish the future from the past in radiocarbon. Environmental Research Letters, 2016, 11, 124016.	2.2	17
36	What would it take to achieve the Paris temperature targets?. Geophysical Research Letters, 2016, 43, 7133-7142.	1.5	164
37	Why the right climate target was agreed in Paris. Nature Climate Change, 2016, 6, 649-653.	8.1	309
38	Mapping the climate change challenge. Nature Climate Change, 2016, 6, 663-668.	8.1	75

#	Article	IF	Citations
39	El NiÃ±o and a record CO2 rise. Nature Climate Change, 2016, 6, 806-810.	8.1	208
40	Paris Agreement climate proposals need a boost to keep warming well below 2â€‰Â°C. Nature, 2016, 534, 631-639.	13.7	2,397
41	Geosciences after Paris. Nature Geoscience, 2016, 9, 187-189.	5.4	51
42	1.5 Â°C and climate research after the Paris Agreement. Nature Climate Change, 2016, 6, 222-224.	8.1	248
43	End of the slo-mo?. Nature Geoscience, 2016, 9, 1-1.	5.4	55
44	Highâ€resolution spatial modelling of greenhouse gas emissions from landâ€use change to energy crops in the United Kingdom. GCB Bioenergy, 2017, 9, 627-644.	2.5	47
45	Synthesis and study of the stability of amidinium/guanidinium carbamates of amines and Î±-amino acids. New Journal of Chemistry, 2017, 41, 1798-1805.	1.4	14
46	Key indicators to track current progress and future ambition of the Paris Agreement. Nature Climate Change, 2017, 7, 118-122.	8.1	298
47	Socio-political prioritization of bioenergy with carbon capture and storage. Energy Policy, 2017, 104, 89-99.	4.2	58
48	BIOCHAR STANDARDIZATION AND LEGISLATION HARMONIZATION. Journal of Environmental Engineering and Landscape Management, 2017, 25, 175-191.	0.4	48
49	Removal of non-CO 2 greenhouse gases by large-scale atmospheric solar photocatalysis. Progress in Energy and Combustion Science, 2017, 60, 68-96.	15.8	117
50	Geoengineering, marine microalgae, and climate stabilization in the 21st century. Earth's Future, 2017, 5, 278-284.	2.4	30
51	From Targets to Action: Rolling up our Sleeves after Paris. Global Challenges, 2017, 1, 1600007.	1.8	5
52	Achieving net-zero emissions through the reframing of UK national targets in the post-ParisÂAgreementÂera. Nature Energy, 2017, 2, .	19.8	94
53	Actors behaving badly: Exploring the modelling of non-optimal behaviour in energy transitions. Energy Strategy Reviews, 2017, 15, 57-71.	3.3	53
54	Origin of path independence between cumulative CO $$_{2}$$ 2 emissions and global warming. Climate Dynamics, 2017, 49, 3383-3401.	1.7	10
55	Can BECCS deliver sustainable and resource efficient negative emissions?. Energy and Environmental Science, 2017, 10, 1389-1426.	15.6	257
56	Future CO₂ emissions and electricity generation from proposed coalâ€fired power plants in India. Earth's Future, 2017, 5, 408-416.	2.4	91

#	Article	IF	Citations
57	Negative CO ₂ emissions via enhanced silicate weathering in coastal environments. Biology Letters, 2017, 13, 20160905.	1.0	74
58	Tradeâ€offs for food production, nature conservation and climate limit the terrestrial carbon dioxide removal potential. Global Change Biology, 2017, 23, 4303-4317.	4.2	44
59	Rightsizing carbon dioxide removal. Science, 2017, 356, 706-707.	6.0	150
60	The limits to globalâ€warming mitigation by terrestrial carbon removal. Earth's Future, 2017, 5, 463-474.	2.4	92
61	Bridging the energy divide and securing higher collective well-being in a climate-constrained world. Energy Policy, 2017, 108, 435-450.	4.2	17
62	Engineering photosynthesis: a necessary tool to protect the world's climate?. Carbon Management, 2017, 8, 167-173.	1.2	3
63	Integrated modelling to support decision-making for marine socialâ€"ecological systems in Australia. ICES Journal of Marine Science, 2017, 74, 2298-2308.	1.2	22
64	Fast growing research on negative emissions. Environmental Research Letters, 2017, 12, 035007.	2.2	114
65	Climate change mitigation: potential benefits and pitfalls of enhanced rock weathering in tropical agriculture. Biology Letters, 2017, 13, 20160715.	1.0	73
66	Evaluation of a new technology for carbon dioxide submarine storage in glass capsules. International Journal of Greenhouse Gas Control, 2017, 60, 140-155.	2.3	11
67	Systems Design and Economic Analysis of Direct Air Capture of CO₂ through Temperature Vacuum Swing Adsorption Using MIL-101(Cr)-PEI-800 and mmen-Mg₂(dobpdc) MOF Adsorbents. Industrial & Engineering Chemistry Research, 2017, 56, 750-764.	1.8	161
68	A Life Cycle Assessment Case Study of Coal-Fired Electricity Generation with Humidity Swing Direct Air Capture of CO₂ versus MEA-Based Postcombustion Capture. Environmental Science & Technology, 2017, 51, 1024-1034.	4.6	49
69	Considering agriculture in IPCC assessments. Nature Climate Change, 2017, 7, 680-683.	8.1	43
70	Sustaining the sequestration efficiency of the European forest sector. Forest Ecology and Management, 2017, 405, 44-55.	1.4	46
71	Poverty eradication in a carbon constrained world. Nature Communications, 2017, 8, 912.	5.8	171
72	The grand challenge of cellulosic biofuels. Nature Biotechnology, 2017, 35, 912-915.	9.4	132
73	Are the impacts of land use on warming underestimated in climate policy?. Environmental Research Letters, 2017, 12, 094016.	2.2	23
74	The Future Role of CCS in Electricity and Liquid Fuel Supply. Energy Procedia, 2017, 114, 7606-7614.	1.8	5

#	Article	IF	Citations
75	Natural climate solutions. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11645-11650.	3.3	1,709
76	The Intergovernmental Panel on Climate Change: Challenges and Opportunities. Annual Review of Environment and Resources, 2017, 42, 55-75.	5.6	54
77	Bioenergy and carbon capture with storage (BECCS): the prospects and challenges of an emerging climate policy response. Journal of Environmental Studies and Sciences, 2017, 7, 527-534.	0.9	38
78	Inefficient power generation as an optimal route to negative emissions via BECCS?. Environmental Research Letters, 2017, 12, 045004.	2.2	52
79	Human wellâ€being and climate change mitigation. Wiley Interdisciplinary Reviews: Climate Change, 2017, 8, e485.	3.6	92
80	Simulating carbon capture by enhanced weathering with croplands: an overview of key processes highlighting areas of future model development. Biology Letters, 2017, 13, 20160868.	1.0	32
81	Making sense of climate engineering: a focus group study of lay publics in four countries. Climatic Change, 2017, 145, 1-14.	1.7	62
82	The impact of future forest dynamics on climate: interactive effects of changing vegetation and disturbance regimes. Ecological Monographs, 2017, 87, 665-684.	2.4	84
83	The nexus of renewable energy-agriculture-environment in BRICS. Applied Energy, 2017, 204, 489-496.	5.1	173
84	Slicing the pie: how big could carbon dioxide removal be?. Wiley Interdisciplinary Reviews: Energy and Environment, 2017, 6, e253.	1.9	14
85	Using forests for climate mitigation: sequester carbon or produce woody biomass?. Climatic Change, 2017, 144, 195-206.	1.7	43
86	The influence of learning about carbon dioxide removal (CDR) on support for mitigation policies. Climatic Change, 2017, 143, 321-336.	1.7	51
87	Leakage risks of geologic CO2 storage and the impacts on the global energy system and climate change mitigation. Climatic Change, 2017, 144, 151-163.	1.7	54
88	Climate policymakers and assessments must get serious about climate engineering. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9227-9230.	3.3	44
89	Catalysing a political shift from low to negative carbon. Nature Climate Change, 2017, 7, 619-621.	8.1	102
90	Open discussion of negative emissions is urgently needed. Nature Energy, 2017, 2, 902-904.	19.8	94
91	On the climate change mitigation potential of CO₂ conversion to fuels. Energy and Environmental Science, 2017, 10, 2491-2499.	15.6	225
92	Synthesis meets theory: Past, present and future of rational chemistry. Physical Sciences Reviews, 2017, 2, .	0.8	3

#	Article	IF	Citations
93	Lower To Mid-Cretaceous Sequence Stratigraphy and Characterization of CO 2 Storage Potential In the Mid-Atlantic U.S. Coastal Plain. Journal of Sedimentary Research, 2017, 87, 609-629.	0.8	9
94	Carbon Dioxide Adsorption on V2O3(0001). Topics in Catalysis, 2017, 60, 413-419.	1.3	10
95	What role for offsetting aviation greenhouse gas emissions in a deep-cut carbon world?. Journal of Air Transport Management, 2017, 63, 71-83.	2.4	68
96	Modelling energy transitions for climate targets under landscape and actor inertia. Environmental Innovation and Societal Transitions, 2017, 24, 106-129.	2.5	46
97	The cost of stratospheric climate engineering revisited. Mitigation and Adaptation Strategies for Global Change, 2017, 22, 1207-1228.	1.0	43
98	Sustainability policy as if people mattered: developing a framework for environmentally significant behavioral change. Journal of Bioeconomics, 2017, 19, 53-95.	1.5	38
99	Focus on negative emissions. Environmental Research Letters, 2017, 12, 110201.	2.2	15
100	Autonomous observing platform CO₂ data shed new light on the Southern Ocean carbon cycle. Global Biogeochemical Cycles, 2017, 31, 1032-1035.	1.9	1
101	Putting Costs of Direct Air Capture in Context. SSRN Electronic Journal, 0, , .	0.4	28
102	Global consequences of afforestation and bioenergy cultivation on ecosystem service indicators. Biogeosciences, 2017, 14, 4829-4850.	1.3	33
103	Young people's burden: requirement of negative CO₂ emissions. Earth System Dynamics, 2017, 8, 577-616.	2.7	189
104	Assessing the Feasibility of Global Long-Term Mitigation Scenarios. Energies, 2017, 10, 89.	1.6	51
105	Agriculture production as a major driver of the Earth system exceeding planetary boundaries. Ecology and Society, 2017, 22, .	1.0	576
106	Transient dynamics of terrestrial carbon storage: mathematical foundation and its applications. Biogeosciences, 2017, 14, 145-161.	1.3	91
107	Microstructural and petrophysical properties of the Permo-Triassic sandstones (Buntsandstein) from the Soultz-sous-ForÃªts geothermal site (France). Geothermal Energy, 2017, 5, .	0.9	56
108	Constraints on global temperature target overshoot. Scientific Reports, 2017, 7, 14743.	1.6	34
111	Community climate simulations to assess avoided impacts in 1.5 and 2â€¯â€‰Â°C futures. Earth System Dynamics, 2017, 8, 827-847.	2.7	153
112	Enhanced rock weathering: biological climate change mitigation with co-benefits for food security?. Biology Letters, 2017, 13, 20170149.	1.0	18

#	Article	IF	Citations
113	It takes a few to tango: changing climate and fire regimes can cause regeneration failure of two subalpine conifers. Ecology, 2018, 99, 966-977.	1.5	87
114	Integrating Algae with Bioenergy Carbon Capture and Storage (ABECCS) Increases Sustainability. Earth's Future, 2018, 6, 524-542.	2.4	62
115	Managing the global land resource. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20172798.	1.2	25
116	Indirect ocean capture of atmospheric CO2: Part II. Understanding the cost of negative emissions. International Journal of Greenhouse Gas Control, 2018, 70, 254-261.	2.3	47
117	Scenarios towards limiting global mean temperature increase below 1.5 Â°C. Nature Climate Change, 2018, 8, 325-332.	8.1	795
118	GHG emission pathways until 2300 for the 1.5ÂÂ°C temperature rise target and the mitigation costs achieving the pathways. Mitigation and Adaptation Strategies for Global Change, 2018, 23, 839-852.	1.0	13
119	Bioenergy in the IPCC Assessments. GCB Bioenergy, 2018, 10, 428-431.	2.5	16
120	Comparing future patterns of energy system change in 2â€¯Â°C scenarios to expert projections. Global Environmental Change, 2018, 50, 201-211.	3.6	25
121	How diplomacy saved the COP21 Paris Climate Conference, but now, can we save ourselves?. Frontiers in Energy, 2018, 12, 344-352.	1.2	0
122	Solar geoengineering as part of an overall strategy for meeting the 1.5Â°C Paris target. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20160454.	1.6	103
123	Reaching a 1.5Â°C target: socio-technical challenges for a rapid transition to low-carbon electricity systems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20160462.	1.6	27
124	Pathways to Post-fossil Economy in a Well Below 2Ââ„ƒ World. Lecture Notes in Energy, 2018, , 33-49.	0.2	2
125	Will Fire Danger Be Reduced by Using Solar Radiation Management to Limit Global Warming to 1.5ÂÂ°C Compared to 2.0ÂÂ°C?. Geophysical Research Letters, 2018, 45, 3644-3652.	1.5	15
126	Alternative pathways to the 1.5â€‰Â°C target reduce the need for negative emission technologies. Nature Climate Change, 2018, 8, 391-397.	8.1	455
127	Large uncertainty in carbon uptake potential of landâ€based climateâ€change mitigation efforts. Global Change Biology, 2018, 24, 3025-3038.	4.2	56
128	The political economy of negative emissions technologies: consequences for international policy design. Climate Policy, 2018, 18, 306-321.	2.6	118
129	Farming with crops and rocks to address global climate, food and soil security. Nature Plants, 2018, 4, 138-147.	4.7	226
130	Aligning carbon targets for construction with (inter)national climate change mitigation commitments. Energy and Buildings, 2018, 165, 106-117.	3.1	45

#	Article	IF	Citations
131	Potential and costs of carbon dioxide removal by enhanced weathering of rocks. Environmental Research Letters, 2018, 13, 034010.	2.2	152
132	Climate, ecosystems, and planetary futures: The challenge to predict life in Earth system models. Science, 2018, 359, .	6.0	397
133	Opportunities and Trade-offs among BECCS and the Food, Water, Energy, Biodiversity, and Social Systems Nexus at Regional Scales. BioScience, 2018, 68, 100-111.	2.2	53
134	The high-energy planet. Global Change, Peace and Security, 2018, 30, 77-84.	0.8	7
135	Biomass-based negative emissions difficult to reconcile with planetary boundaries. Nature Climate Change, 2018, 8, 151-155.	8.1	207
136	CO ₂ loss by permafrost thawing implies additional emissions reductions to limit warming to 1.5 or 2â€‰Â°C. Environmental Research Letters, 2018, 13, 024024.	2.2	22
137	Estimating waterâ€“foodâ€“ecosystem trade-offs for the global negative emission scenario (IPCC-RCP2.6). Sustainability Science, 2018, 13, 301-313.	2.5	33
138	Biogenic Carbonâ€"Capture and Sequestration. , 2018, , 55-76.		6
140	Effect of diglyme addition on performance and emission characteristics of hybrid minor vegetable oil blends (rubber seed and babassu oil) in a tractor engineÂâ€“Âan experimental study. Biofuels, 0, , 1-9.	1.4	12
141	How to spend a dwindling greenhouse gas budget. Nature Climate Change, 2018, 8, 7-10.	8.1	119
142	The global overlap of bioenergy and carbon sequestration potential. Climatic Change, 2018, 148, 1-10.	1.7	35
143	Integrating carbon dioxide removal into EU climate policy: Prospects for a paradigm shift. Wiley Interdisciplinary Reviews: Climate Change, 2018, 9, e521.	3.6	40
144	Geoengineering: neither economical, nor ethicalâ€"a riskâ€“reward nexus analysis of carbon dioxide removal. International Environmental Agreements: Politics, Law and Economics, 2018, 18, 63-77.	1.5	27
145	The energy return on investment of BECCS: is BECCS a threat to energy security?. Energy and Environmental Science, 2018, 11, 1581-1594.	15.6	89
146	Tunable infrared radiation properties of hybrid films co-assembled with semiconductor quantum chips and exfoliated ultra-thin LDH nanosheets. Journal of Alloys and Compounds, 2018, 751, 215-223.	2.8	13
147	Land Surface Cooling Induced by Sulfate Geoengineering Constrained by Major Volcanic Eruptions. Geophysical Research Letters, 2018, 45, 5663-5671.	1.5	16
148	Desalination as a negative emissions technology. Environmental Science: Water Research and Technology, 2018, 4, 839-850.	1.2	8
149	Integrated Assessment of Carbon Dioxide Removal. Earth's Future, 2018, 6, 565-582.	2.4	19

#	Article	IF	Citations
150	Geospatial analysis of near-term potential for carbon-negative bioenergy in the United States. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3290-3295.	3.3	82
151	Mitigation gambles: uncertainty, urgency and the last gamble possible. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170105.	1.6	20
153	Preempting the Second Contradiction: Solar Geoengineering as Spatiotemporal Fix. Annals of the American Association of Geographers, 2018, 108, 1228-1244.	1.5	29
154	Implications of possible interpretations of â€˜greenhouse gas balanceâ€™ in the Paris Agreement. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20160445.	1.6	72
155	Impacts on terrestrial biodiversity of moving from a 2Â°C to a 1.5Â°C target. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20160456.	1.6	24
156	Pathways limiting warming to 1.5Â°C: a tale of turning around in no time?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20160457.	1.6	84
157	Designing sustainable landuse in a 1.5 Â°C world: the complexities of projecting multiple ecosystem services from land. Current Opinion in Environmental Sustainability, 2018, 31, 88-95.	3.1	28
158	The challenge of carbon dioxide removal for EU policy-making. Nature Energy, 2018, 3, 350-352.	19.8	33
159	Quantified, localized health benefits of accelerated carbon dioxide emissions reductions. Nature Climate Change, 2018, 8, 291-295.	8.1	128
160	A review of technology and policy deep decarbonization pathway options for making energy-intensive industry production consistent with the Paris Agreement. Journal of Cleaner Production, 2018, 187, 960-973.	4.6	333
161	CO2 Sequestration: Processes and Methodologies. , 2018, , 1-50.		1
162	CO2 capture in ethanol distilleries in Brazil: Designing the optimum carbon transportation network by integrating hubs, pipelines and trucks. International Journal of Greenhouse Gas Control, 2018, 71, 168-183.	2.3	30
163	The Paris warming targets: emissions requirements and sea level consequences. Climatic Change, 2018, 147, 31-45.	1.7	39
164	Carbon capture and storage (CCS): the way forward. Energy and Environmental Science, 2018, 11, 1062-1176.	15.6	2,378
165	Next steps in geoengineering scenario research: limited deployment scenarios and beyond. Climate Policy, 2018, 18, 681-689.	2.6	17
166	Consensus, uncertainties and challenges for perennial bioenergy crops and land use. GCB Bioenergy, 2018, 10, 150-164.	2.5	80
167	Solar thermal hybrids for combustion power plant: A growing opportunity. Progress in Energy and Combustion Science, 2018, 64, 4-28.	15.8	110
168	Long-Term Development Perspectives of Sub-Saharan Africa under Climate Policies. Ecological Economics, 2018, 144, 148-159.	2.9	22

#	Article	IF	Citations
169	A Critique of the Australian National Outlook Decoupling Strategy: A â€˜Limits to Growthâ€™ Perspective. Ecological Economics, 2018, 145, 10-17.	2.9	14
170	Scientific principles and public policy. Earth-Science Reviews, 2018, 176, 214-221.	4.0	5
171	Indirect ocean capture of atmospheric CO2: Part I. Prototype of a negative emissions technology. International Journal of Greenhouse Gas Control, 2018, 70, 243-253.	2.3	62
172	The changing faces of soil organic matter research. European Journal of Soil Science, 2018, 69, 23-30.	1.8	35
173	Ecosystem responses to elevated <scp>CO</scp>₂ governed by plantâ€“soil interactions and the cost of nitrogen acquisition. New Phytologist, 2018, 217, 507-522.	3.5	139
174	Atmospheric feedbacks in North Africa from an irrigated, afforested Sahara. Climate Dynamics, 2018, 50, 4561-4581.	1.7	13
175	Designing an optimum carbon capture and transportation network by integrating ethanol distilleries with fossil-fuel processing plants in Brazil. International Journal of Greenhouse Gas Control, 2018, 68, 112-127.	2.3	22
176	Focus on cumulative emissions, global carbon budgets and the implications for climate mitigation targets. Environmental Research Letters, 2018, 13, 010201.	2.2	75
177	Extending European energy efficiency standards to include material use: an analysis. Climate Policy, 2018, 18, 627-641.	2.6	35
178	Between Scylla and Charybdis: Delayed mitigation narrows the passage between large-scale CDR and high costs. Environmental Research Letters, 2018, 13, 044015.	2.2	73
179	Climate, economic, and environmental impacts of producing wood for bioenergy. Environmental Research Letters, 2018, 13, 050201.	2.2	47
180	Constraints on biomass energy deployment in mitigation pathways: the case of water scarcity. Environmental Research Letters, 2018, 13, 054011.	2.2	19
181	Market-Level Implications of Regulating Forest Carbon Storage and Albedo for Climate Change Mitigation. Agricultural and Resource Economics Review, 2018, 47, 239-271.	0.6	7
182	Biogeochemical potential of biomass pyrolysis systems for limiting global warming to 1.5â€‰Â°C. Environmental Research Letters, 2018, 13, 044036.	2.2	48
183	The role of largeâ€"scale BECCS in the pursuit of the 1.5Â°C target: an Earth system model perspective. Environmental Research Letters, 2018, 13, 044010.	2.2	33
184	Strategies for Climate-Smart Forest Management in Austria. Forests, 2018, 9, 592.	0.9	39
185	Climate Surprises: Risk Transfers, Negative Emissions, and the Pivotal Generation. SSRN Electronic Journal, 0, , .	0.4	2
186	Energy and Environmental Aspects of Using Eucalyptus from Brazil for Energy and Transportation Services in Europe. Sustainability, 2018, 10, 4068.	1.6	22

#	Article	IF	Citations
187	ORCHIDEE-MICT-BIOENERGY: an attempt to represent the production of lignocellulosic crops for bioenergy in a global vegetation model. Geoscientific Model Development, 2018, 11, 2249-2272.	1.3	18
188	Investigating the BECCS resource nexus: delivering sustainable negative emissions. Energy and Environmental Science, 2018, 11, 3408-3430.	15.6	96
190	The ethics of negative emissions. Global Sustainability, 2018, 1, .	1.6	49
191	Natural climate solutions for the United States. Science Advances, 2018, 4, eaat1869.	4.7	333
192	Reducing US Coal Emissions Can Boost Employment. Joule, 2018, 2, 2633-2648.	11.7	48
193	Short term policies to keep the door open for Paris climate goals. Environmental Research Letters, 2018, 13, 074022.	2.2	48
194	Silver bullet or bitter pill? Reassessing the scope of CO₂capture and storage in India. Carbon Management, 2018, 9, 311-332.	1.2	7
195	Paris Agreement, Precautionary Principle and Human Rights: Zero Emissions in Two Decades?. Sustainability, 2018, 10, 2812.	1.6	39
196	Biomass production in plantations: Land constraints increase dependency on irrigation water. GCB Bioenergy, 2018, 10, 628-644.	2.5	15
197	Reconsidering bioenergy given the urgency of climate protection. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9642-9645.	3.3	20
198	Chaos and the Flow Capture Problem: Polluting is Easy, Cleaning is Hard. Physical Review Applied, 2018, 10, .	1.5	2
199	Negative Emission Potential of Direct Air Capture Powered by Renewable Excess Electricity in Europe. Earth's Future, 2018, 6, 1380-1384.	2.4	39
201	Global projections of future cropland expansion to 2050 and direct impacts on biodiversity and carbon storage. Global Change Biology, 2018, 24, 5895-5908.	4.2	126
202	Contribution of forest wood products to negative emissions: historical comparative analysis from 1960 to 2015 in Norway, Sweden and Finland. Carbon Balance and Management, 2018, 13, 12.	1.4	37
203	When too much isnâ€™t enough: Does current food production meet global nutritional needs?. PLoS ONE, 2018, 13, e0205683.	1.1	110
204	Using Renewable Portfolio Standards to Accelerate Development of Negative Emissions Technologies. SSRN Electronic Journal, 2018, , .	0.4	2
205	A Diamine-Based Integrated Absorptionâ€"Mineralization Process for Carbon Capture and Sequestration: Energy Savings, Fast Kinetics, and High Stability. Environmental Science & Technology, 2018, 52, 13629-13637.	4.6	28
206	Global energy sector emission reductions and bioenergy use: overview of the bioenergy demand phase of the EMF-33 model comparison. Climatic Change, 2020, 163, 1553-1568.	1.7	112

#	Article	IF	Citations
207	Adsorption and Biomass: Current Interconnections and Future Challenges. Current Sustainable/Renewable Energy Reports, 2018, 5, 247-256.	1.2	7
208	The impact of aerosol emissions on the 1.5â€‰Â°C pathways. Environmental Research Letters, 2018, 13, 044011.	2.2	21
210	Progress toward Commercial Application of Electrochemical Carbon Dioxide Reduction. CheM, 2018, 4, 2571-2586.	5.8	445
211	Assessing carbon dioxide removal through global and regional ocean alkalinization under high and low emission pathways. Earth System Dynamics, 2018, 9, 339-357.	2.7	37
212	A novel approach to assessing the commercial opportunities for greenhouse gas removal technology value chains: Developing the case for a negative emissions credit in the UK. Journal of Cleaner Production, 2018, 203, 1003-1018.	4.6	16
213	Evaluating climate geoengineering proposals in the context of the Paris Agreement temperature goals. Nature Communications, 2018, 9, 3734.	5.8	166
214	Ocean Solutions to Address Climate Change and Its Effects on Marine Ecosystems. Frontiers in Marine Science, 2018, 5, .	1.2	248
215	Regional responses to future, demand-driven water scarcity. Environmental Research Letters, 2018, 13, 094006.	2.2	30
216	The Economics of 1.5Â°C Climate Change. Annual Review of Environment and Resources, 2018, 43, 455-480.	5.6	23
217	Evaluating the use of biomass energy with carbon capture and storage in low emission scenarios. Environmental Research Letters, 2018, 13, 044014.	2.2	81
218	The potential of agricultural land management to contribute to lower global surface temperatures. Science Advances, 2018, 4, eaaq0932.	4.7	36
219	Post-growth strategies can be more feasible than techno-fixes: Focus on working time. Infrastructure Asset Management, 2018, 5, 230-236.	1.2	16
221	Pathways toward zero-carbon electricity required for climate stabilization. Applied Energy, 2018, 225, 884-901.	5.1	47
222	Ratcheting ambition to limit warming to 1.5â€‰Â°C â€“ trade-offs between emission reductions and carbon dioxide removal. Environmental Research Letters, 2018, 13, 064028.	2.2	56
223	Response to â€˜Burden of proof: A comprehensive review of the feasibility of 100% renewable-electricity systemsâ€™. Renewable and Sustainable Energy Reviews, 2018, 92, 834-847.	8.2	354
224	The projected effect on insects, vertebrates, and plants of limiting global warming to 1.5Â°C rather than 2Â°C. Science, 2018, 360, 791-795.	6.0	244
225	Negative emissionsâ€"Part 3: Innovation and upscaling. Environmental Research Letters, 2018, 13, 063003.	2.2	224
226	The post-carbon society: Rethinking the international governance of negative emissions. Energy Research and Social Science, 2018, 44, 199-208.	3.0	30

#	Article	IF	Citations
227	Opportunities for application of BECCS in the Australian power sector. Applied Energy, 2018, 224, 615-635.	5.1	64
228	Cumulative global forest carbon implications of regional bioenergy expansion policies. Resources and Energy Economics, 2018, 53, 198-219.	1.1	35
229	Unprecedented rates of land-use transformation in modelled climate change mitigation pathways. Nature Sustainability, 2018, 1, 240-245.	11.5	46
230	Irreversible ocean thermal expansion under carbon dioxide removal. Earth System Dynamics, 2018, 9, 197-210.	2.7	26
231	The Carbon Dioxide Removal Model Intercomparison Project (CDRMIP): rationale and experimental protocol for CMIP6. Geoscientific Model Development, 2018, 11, 1133-1160.	1.3	113
232	Net-zero emissions energy systems. Science, 2018, 360, .	6.0	1,165
233	The global potential for converting renewable electricity to negative-CO2-emissions hydrogen. Nature Climate Change, 2018, 8, 621-625.	8.1	74
234	Negative-emissions hydrogen energy. Nature Climate Change, 2018, 8, 560-561.	8.1	41
235	Comparing impacts of climate change and mitigation on global agriculture by 2050. Environmental Research Letters, 2018, 13, 064021.	2.2	93
236	Negative emissionsâ€"Part 1: Research landscape and synthesis. Environmental Research Letters, 2018, 13, 063001.	2.2	498
237	Negative-CO2-emissions ocean thermal energy conversion. Renewable and Sustainable Energy Reviews, 2018, 95, 265-272.	8.2	46
238	Negative emissionsâ€"Part 2: Costs, potentials and side effects. Environmental Research Letters, 2018, 13, 063002.	2.2	823
239	Land-use emissions play a critical role in land-based mitigation for Paris climate targets. Nature Communications, 2018, 9, 2938.	5.8	194
240	Residual fossil CO2 emissions in 1.5â€"2â€‰Â°C pathways. Nature Climate Change, 2018, 8, 626-633.	8.1	380
241	Management practices to reduce losses or increase soil carbon stocks in temperate grazed grasslands: New Zealand as a case study. Agriculture, Ecosystems and Environment, 2018, 265, 432-443.	2.5	73
242	Co-producing climate policy and negative emissions: trade-offs for sustainable land-use. Global Sustainability, 2018, 1, .	1.6	36
243	Closing the carbon cycle to maximise climate change mitigation: power-to-methanol<i>vs.</i>power-to-direct air capture. Sustainable Energy and Fuels, 2018, 2, 1153-1169.	2.5	53
244	Near-term deployment of carbon capture and sequestration from biorefineries in the United States. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4875-4880.	3.3	106

#	Article	IF	Citations
245	Analysis of the hydrological cycle and its impacts on the sustainability of the electric matrix in the state of Rio de Janeiro/Brazil. Energy Strategy Reviews, 2018, 22, 119-126.	3.3	10
246	The Climate-Change Mitigation Challenge. , 2018, , 187-203.		2
247	The potential for implementation of Negative Emission Technologies in Scotland. International Journal of Greenhouse Gas Control, 2018, 76, 85-91.	2.3	38
248	Long-term low greenhouse gas emission development strategiesÂfor achieving the 1.5 Â°C target â€“ insights from a comparison of German bottom-up energy scenarios. Carbon Management, 2018, 9, 549-562.	1.2	8
249	A low energy demand scenario for meeting the 1.5â€‰Â°C target and sustainable development goals without negative emission technologies. Nature Energy, 2018, 3, 515-527.	19.8	733
250	A meta-analysis of the greenhouse gas abatement of bioenergy factoring in land use changes. Scientific Reports, 2018, 8, 8563.	1.6	21
251	A Process for Capturing CO2 from the Atmosphere. Joule, 2018, 2, 1573-1594.	11.7	976
252	The many possible climates from the Paris Agreementâ€™s aim of 1.5 Â°C warming. Nature, 2018, 558, 41-49.	13.7	116
253	The Effects of Carbon Dioxide Removal on the Carbon Cycle. Current Climate Change Reports, 2018, 4, 250-265.	2.8	58
254	Projecting Soil C Under Future Climate and Land-Use Scenarios (Modeling). , 2018, , 281-309.		7
255	The transition in energy demand sectors to limit global warming to 1.5ÂÂ°C. Energy Efficiency, 2019, 12, 441-462.	1.3	22
256	Will policies to promote energy efficiency help or hinder achieving a 1.5ÂÂ°C climate target?. Energy Efficiency, 2019, 12, 551-565.	1.3	23
257	Mobility, food and housing: responsibility, individual consumption and demand-side policies in European deep decarbonisation pathways. Energy Efficiency, 2019, 12, 497-519.	1.3	33
258	Negative emission technologies. , 2019, , 1-13.		12
259	Rightsizing expectations for bioenergy with carbon capture and storage toward ambitious climate goals. , 2019, , 63-84.		3
260	Status of bioenergy with carbon capture and storageâ€"potential and challenges. , 2019, , 85-107.		8
261	Economics and policy of bioenergy with carbon capture and storage. , 2019, , 257-271.		3
262	Bioenergy with carbon capture and storage in a future world. , 2019, , 273-287.		0

#	Article	IF	Citations
263	Impact of Solar Radiation Modification on Allowable CO₂ Emissions: What Can We Learn From Multimodel Simulations?. Earth's Future, 2019, 7, 664-676.	2.4	9
264	Reinforcement of polyamide 6/66 with a 9,9â€²-bis(aryl)fluorene-modified cellulose nanofiber. Polymer Journal, 2019, 51, 1189-1195.	1.3	3
265	Engineering climate debt: temperature overshoot and peak-shaving as risky subprime mortgage lending. Climate Policy, 2019, 19, 937-946.	2.6	27
266	Energy System Modelling of Carbon-Neutral Hydrogen as an Enabler of Sectoral Integration within a Decarbonization Pathway. Energies, 2019, 12, 2551.	1.6	30
267	Strategy of Developing Innovative Technology for Sustainable Cities: The Case of the National Strategic Project on Carbon Mineralization in the Republic of Korea. Sustainability, 2019, 11, 3613.	1.6	2
268	An inter-model assessment of the role of direct air capture in deep mitigation pathways. Nature Communications, 2019, 10, 3277.	5.8	267
269	A Roadmap for Lowering Crop Nitrogen Requirement. Trends in Plant Science, 2019, 24, 892-904.	4.3	89
270	An Energy Transition That Relies Only on Technology Leads to a Bet on Solar Fuels. Joule, 2019, 3, 2286-2290.	11.7	13
271	Negative Emissions: Priorities for Research and Policy Design. Frontiers in Climate, 2019, 1, .	1.3	47
272	Quantifying the global warming potential of carbon dioxide emissions from bioenergy with carbon capture and storage. Renewable and Sustainable Energy Reviews, 2019, 115, 109408.	8.2	68
273	Pathways Toward Sustainable Development. , 2019, , 510-543.		0
274	The Role of Direct Air Capture in Mitigation of Anthropogenic Greenhouse Gas Emissions. Frontiers in Climate, 2019, 1, .	1.3	135
275	Pollutant gas and particulate material emissions in ethanol production in Brazil: social and environmental impacts. Environmental Science and Pollution Research, 2019, 26, 35082-35093.	2.7	4
276	Higher Carbon Prices on Emissions Alone Will Not Deliver the Paris Agreement. Joule, 2019, 3, 2120-2133.	11.7	45
277	ESD Ideas: Photoelectrochemical carbon removal as negative emission technology. Earth System Dynamics, 2019, 10, 1-7.	2.7	5
278	Mitigation potential and environmental impact of centralized versus distributed BECCS with domestic biomass production in Great Britain. GCB Bioenergy, 2019, 11, 1234-1252.	2.5	23
279	Costs to achieve target net emissions reductions in the US electric sector using direct air capture. Environmental Research Letters, 2019, 14, 084013.	2.2	9
280	Biochar Effects on Two Tropical Tree Species and Its Potential as a Tool for Reforestation. Forests, 2019, 10, 678.	0.9	27

#	Article	IF	Citations
281	Rapid Climate-Driven Circulation Changes Threaten Conservation of Endangered North Atlantic Right Whales. Oceanography, 2019, 32, .	0.5	97
282	A new scenario logic for the Paris Agreement long-term temperature goal. Nature, 2019, 573, 357-363.	13.7	307
283	The Trouble with Trees: Afforestation Plans for Africa. Trends in Ecology and Evolution, 2019, 34, 963-965.	4.2	164
284	Grid-scale energy storage with net-zero emissions: comparing the options. Sustainable Energy and Fuels, 2019, 3, 3147-3162.	2.5	13
285	Water use of electricity technologies: A global meta-analysis. Renewable and Sustainable Energy Reviews, 2019, 115, 109391.	8.2	96
286	Fixing the Climate? How Geoengineering Threatens to Undermine the SDGs and Climate Justice. Development, 2019, 62, 29-36.	0.5	9
287	Halving energy demand from buildings: The impact of low consumption practices. Technological Forecasting and Social Change, 2019, 146, 253-266.	6.2	46
288	Freshwater requirements of large-scale bioenergy plantations for limiting global warming to 1.5 Â°C. Environmental Research Letters, 2019, 14, 084001.	2.2	25
289	Assessing the potential of soil carbonation and enhanced weathering through Life Cycle Assessment: A case study for Sao Paulo State, Brazil. Journal of Cleaner Production, 2019, 233, 468-481.	4.6	62
290	Replacing the Most Influential Indicator in the World. , 2019, , 3-26.		0
291	Why Is GDP Successful?. , 2019, , 27-53.		0
292	What Does GDP Measure (And What Not)?. , 2019, , 54-78.		0
293	Why Is Beyond-GDP Not Successful?. , 2019, , 79-102.		0
294	Outline of the Strategy. , 2019, , 105-125.		0
295	Global Environmental Accounts (GENA). , 2019, , 126-147.		0
296	Global Societal Accounts (GSA). , 2019, , 148-164.		0
297	Global Economic Accounts (GECA). , 2019, , 165-190.		0
298	Global Distribution Accounts (GDA). , 2019, , 191-207.		0

#	Article	IF	Citations
299	Global Quality Accounts (GQA) and Quality Indicators. , 2019, , 208-237.		0
300	Implementation of the Strategy. , 2019, , 238-258.		0
305	Land-Management Options for Greenhouse Gas Removal and Their Impacts on Ecosystem Services and the Sustainable Development Goals. Annual Review of Environment and Resources, 2019, 44, 255-286.	5.6	181
306	On the financial viability of negative emissions. Nature Communications, 2019, 10, 1783.	5.8	59
307	Reactivity improvement of ilmenite by calcium nitrate melt infiltration for Chemical Looping Combustion of biomass. Carbon Resources Conversion, 2019, 2, 51-58.	3.2	13
308	Forest adaptation to climate changeâ€"is non-management an option?. Annals of Forest Science, 2019, 76, 1.	0.8	93
309	Ecosystem maintenance energy and the need for a green EROI. Energy Policy, 2019, 131, 229-234.	4.2	39
310	Limited capacity of tree growth to mitigate the global greenhouse effect under predicted warming. Nature Communications, 2019, 10, 2171.	5.8	92
311	A Review of Criticisms of Integrated Assessment Models and Proposed Approaches to Address These, through the Lens of BECCS. Energies, 2019, 12, 1747.	1.6	119
312	Simulation and optimization of a novel moving belt adsorber concept for the direct air capture of carbon dioxide. Computers and Chemical Engineering, 2019, 126, 520-534.	2.0	24
313	Microbial models with minimal mineral protection can explain long-term soil organic carbon persistence. Scientific Reports, 2019, 9, 6522.	1.6	62
314	Sectoral Interactions as Carbon Dioxide Emissions Approach Zero in a Highly-Renewable European Energy System. Energies, 2019, 12, 1032.	1.6	24
315	â€œFixingâ€•Climate Change by Mortgaging the Future: Negative Emissions, Spatiotemporal Fixes, and the Political Economy of Delay. Antipode, 2019, 51, 750-769.	2.5	69
316	Implementing the Paris Climate Agreement: Risks and Opportunities for Sustainable Land Use. International Yearbook of Soil Law and Policy, 2019, , 249-270.	0.2	2
317	Meat consumption, behaviour and the media environment: a focus group analysis across four countries. Food Security, 2019, 11, 123-139.	2.4	50
318	A Review of Carbon Capture and Storage Project Investment and Operational Decision-Making Based on Bibliometrics. Energies, 2019, 12, 23.	1.6	41
319	Techno-economic assessment of CO2 direct air capture plants. Journal of Cleaner Production, 2019, 224, 957-980.	4.6	614
320	Towards net zero CO2 emissions without relying on massive carbon dioxide removal. Sustainability Science, 2019, 14, 1739-1743.	2.5	29

#	Article	IF	Citations
321	Bioenergy and Climate Change: Greenhouse Gas Mitigation. Biofuel and Biorefinery Technologies, 2019, , 269-289.	0.1	3
322	The contradiction of the sustainable development goals: Growth versus ecology on a finite planet. Sustainable Development, 2019, 27, 873-884.	6.9	255
323	Negative emissions technologies: A complementary solution for climate change mitigation. Science of the Total Environment, 2019, 672, 502-514.	3.9	73
324	Subsistence protection and mitigation ambition: Necessities, economic and climatic. British Journal of Politics and International Relations, 2019, 21, 251-262.	1.8	33
325	Techno-economic evaluation of BECCS via chemical looping combustion of Japanese woody biomass. International Journal of Greenhouse Gas Control, 2019, 83, 69-82.	2.3	22
326	Zn phthalocyanine/carbon nitride heterojunction for visible light photoelectrocatalytic conversion of CO2 to methanol. Journal of Catalysis, 2019, 371, 214-223.	3.1	38
327	Solar UV radiation in a changing world: roles of cryosphereâ€"landâ€"waterâ€"atmosphere interfaces in global biogeochemical cycles. Photochemical and Photobiological Sciences, 2019, 18, 747-774.	1.6	49
328	The mutual dependence of negative emission technologies and energy systems. Energy and Environmental Science, 2019, 12, 1805-1817.	15.6	135
329	Current and emerging methodologies for estimating carbon sequestration in agricultural soils: A review. Science of the Total Environment, 2019, 665, 890-912.	3.9	88
330	When are negative emissions negative emissions?. Energy and Environmental Science, 2019, 12, 1210-1218.	15.6	136
331	Public support for carbon dioxide removal strategies: the role of tampering with nature perceptions. Climatic Change, 2019, 152, 345-361.	1.7	58
332	The Imperative of Redistribution in an Age of Ecological Overshoot: Human Rights and Global Inequality. Humanity, 2019, 10, 416-428.	0.3	29
333	From Zero to Hero?: Why Integrated Assessment Modeling of Negative Emissions Technologies Is Hard and How We Can Do Better. Frontiers in Climate, 2019, 1, .	1.3	59
334	Engineered CO2 Removal, Climate Restoration, and Humility. Frontiers in Climate, 2019, 1, .	1.3	14
335	The Potential Role of Direct Air Capture in the German Energy Research Programâ€"Results of a Multi-Dimensional Analysis. Energies, 2019, 12, 3443.	1.6	55
336	Committed emissions and the risk of stranded assets from power plants in Latin America and the Caribbean. Environmental Research Letters, 2019, 14, 124096.	2.2	11
337	CO2 Removal With Enhanced Weathering and Ocean Alkalinity Enhancement: Potential Risks and Co-benefits for Marine Pelagic Ecosystems. Frontiers in Climate, 2019, 1, .	1.3	107
338	Mitigating Climate Change Will Depend on Negative Emissions Technologies. Engineering, 2019, 5, 982-984.	3.2	13

#	Article	IF	Citations
339	Quantifying operational lifetimes for coal power plants under the Paris goals. Nature Communications, 2019, 10, 4759.	5.8	112
340	Direct Air Carbon Capture and Sequestration: How It Works and How It Could Contribute to Climate-Change Mitigation. One Earth, 2019, 1, 405-409.	3.6	90
341	Trace CO ₂ capture by an ultramicroporous physisorbent with low water affinity. Science Advances, 2019, 5, eaax9171.	4.7	143
342	Meeting climate targets by direct CO₂ injections: what price would the ocean have to pay?. Earth System Dynamics, 2019, 10, 711-727.	2.7	4
343	Planning a Low-Carbon Energy Transition: What Can and Canâ€™t the Models Tell Us?. Joule, 2019, 3, 1795-1798.	11.7	37
344	The technological and economic prospects for CO2 utilization and removal. Nature, 2019, 575, 87-97.	13.7	1,142
345	Contribution of the land sector to a 1.5 Â°C world. Nature Climate Change, 2019, 9, 817-828.	8.1	301
346	Strong time dependence of ocean acidification mitigation by atmospheric carbon dioxide removal. Nature Communications, 2019, 10, 5592.	5.8	19
347	Tropical carbon sink accelerated by symbiotic dinitrogen fixation. Nature Communications, 2019, 10, 5637.	5.8	33
348	A prospective clinical, cost and environmental analysis of a clinician-led virtual urology clinic. Annals of the Royal College of Surgeons of England, 2019, 101, 30-34.	0.3	46
349	A Primer on Global Environmental Change. Abacus, 2019, 55, 810-824.	0.9	6
350	Welche Rolle spielen negative Emissionen fÃ¼r die zukÃ¼nftige Klimapolitik?. Perspektiven Der Wirtschaftspolitik, 2019, 20, 145-158.	0.2	2
351	Governance of bioenergy with carbon capture and storage (BECCS): accounting, rewarding, and the Paris agreement. Climate Policy, 2019, 19, 329-341.	2.6	50
352	Pyrogenic carbon capture and storage. GCB Bioenergy, 2019, 11, 573-591.	2.5	95
353	CO2 Sequestration: Processes and Methodologies. , 2019, , 1-50.		0
354	Exploring the impacts of biofuel expansion on land use change and food security based on a land explicit CGE model: A case study of China. Applied Energy, 2019, 236, 514-525.	5.1	46
355	Research on the peak of CO2 emissions in the developing world: Current progress and future prospect. Applied Energy, 2019, 235, 186-203.	5.1	86
356	Carbon sequestration in riparian forests: A global synthesis and metaâ€analysis. Global Change Biology, 2019, 25, 57-67.	4.2	83

#	Article	IF	Citations
357	Japan's long-term climate mitigation policy: Multi-model assessment and sectoral challenges. Energy, 2019, 167, 1120-1131.	4.5	59
358	Geoengineering: Sunlight reflection methods and negative emissions technologies for greenhouse gas removal. , 2019, , 581-636.		1
359	Bridging the divide between human and physical geography: Potential avenues for collaborative research on climate modeling. Geography Compass, 2019, 13, e12418.	1.5	10
360	Origins of abrupt change? Postfire subalpine conifer regeneration declines nonlinearly with warming and drying. Ecological Monographs, 2019, 89, e01340.	2.4	69
361	Financial de-risking to unlock Africa's renewable energy potential. Renewable and Sustainable Energy Reviews, 2019, 102, 75-82.	8.2	91
362	Affordable CO2 negative emission through hydrogen from biomass, ocean liming, and CO2 storage. Mitigation and Adaptation Strategies for Global Change, 2019, 24, 1231-1248.	1.0	16
363	The role and value of negative emissions technologies in decarbonising the UK energy system. International Journal of Greenhouse Gas Control, 2019, 81, 181-198.	2.3	54
364	Assessing human and environmental pressures of global land-use change 2000â€“2010. Global Sustainability, 2019, 2, .	1.6	60
365	Global Negative Emission Land Use Scenarios and Their Ecological Implications. , 2019, , 96-107.		1
366	Targeting carbon dioxide removal in the European Union. Climate Policy, 2019, 19, 487-494.	2.6	59
367	Is it possible to achieve a good life for all within planetary boundaries?. Third World Quarterly, 2019, 40, 18-35.	1.3	88
368	Development of a high-resolution spatial inventory of greenhouse gas emissions for Poland from stationary and mobile sources. Mitigation and Adaptation Strategies for Global Change, 2019, 24, 853-880.	1.0	30
369	Matching policy and science: Rationale for the â€˜4 per 1000 - soils for food security and climateâ€™ initiative. Soil and Tillage Research, 2019, 188, 3-15.	2.6	208
370	Production, restoration, mitigation: a new generation of plantations. New Forests, 2019, 50, 153-168.	0.7	44
371	All or nothing: Climate policy when assets can become stranded. Journal of Environmental Economics and Management, 2020, 100, 102214.	2.1	28
372	Plant trees for the planet: the potential of forests for climate change mitigation and the major drivers of national forest area. Mitigation and Adaptation Strategies for Global Change, 2020, 25, 519-536.	1.0	9
373	Is Green Growth Possible?. New Political Economy, 2020, 25, 469-486.	2.7	712
374	Carbon dioxide direct air capture for effective climate change mitigation based on renewable electricity: a new type of energy system sector coupling. Mitigation and Adaptation Strategies for Global Change, 2020, 25, 43-65.	1.0	97

#	Article	IF	Citations
375	The 4p1000 initiative: Opportunities, limitations and challenges for implementing soil organic carbon sequestration as a sustainable development strategy. Ambio, 2020, 49, 350-360.	2.8	208
376	Sustainable agriculture options for production, greenhouse gasses and pollution alleviation, and nutrient recycling in emerging and transitional nations - An overview. Journal of Cleaner Production, 2020, 242, 118319.	4.6	145
377	Is bio-energy carbon capture and storage (BECCS) feasible? The contested authority of integrated assessment modeling. Energy Research and Social Science, 2020, 60, 101326.	3.0	74
378	Characterising the biophysical, economic and social impacts of soil carbon sequestration as a greenhouse gas removal technology. Global Change Biology, 2020, 26, 1085-1108.	4.2	65
379	Assessing negative carbon dioxide emissions from the perspective of a national â€œfair shareâ€• of the remaining global carbon budget. Mitigation and Adaptation Strategies for Global Change, 2020, 25, 579-602.	1.0	9
380	Learning from the Climate Change Debate to Avoid Polarisation on Negative Emissions. Environmental Communication, 2020, 14, 23-35.	1.2	40
381	Potentials and opportunities towards the low carbon technologies â€“ From literature review to new classification. Critical Reviews in Environmental Science and Technology, 2020, 50, 1013-1042.	6.6	5
382	Which practices coâ€deliver food security, climate change mitigation and adaptation, and combat land degradation and desertification?. Global Change Biology, 2020, 26, 1532-1575.	4.2	164
383	Unlocking the potential of BECCS with indigenous sources of biomass at a national scale. Sustainable Energy and Fuels, 2020, 4, 226-253.	2.5	21
384	Investigation of water co-adsorption on the energy balance of solid sorbent based direct air capture processes. Energy, 2020, 192, 116587.	4.5	11
385	Is hydrothermal treatment coupled with carbon capture and storage an energy-producing negative emissions technology?. Energy Conversion and Management, 2020, 203, 112252.	4.4	66
386	Bioâ€ethylene from sugarcane as a competitiveness strategy for the Brazilian chemical industry. Biofuels, Bioproducts and Biorefining, 2020, 14, 286-300.	1.9	13
387	Beyond the social cost of carbon: Negative emission technologies as a means for biophysically setting the price of carbon. Ambio, 2020, 49, 1567-1580.	2.8	6
388	Accounting for soil organic carbon role in land use contribution to climate change in agricultural LCA: which methods? Which impacts?. International Journal of Life Cycle Assessment, 2020, 25, 1217-1230.	2.2	20
389	A continuing need to revisit BECCS and its potential. Nature Climate Change, 2020, 10, 2-3.	8.1	34
390	Assessing Carbon Capture: Public Policy, Science, and Societal Need. Biophysical Economics and Sustainability, 2020, 5, 1.	0.7	22
391	BECCS based on bioethanol from wood residues: Potential towards a carbon-negative transport and side-effects. Applied Energy, 2020, 279, 115884.	5.1	41
392	The role of BECCS in deep decarbonization of China's economy: A computable general equilibrium analysis. Energy Economics, 2020, 92, 104968.	5.6	50

#	Article	IF	Citations
393	Recognizing the Value of Collaboration in Delivering Carbon Dioxide Removal. One Earth, 2020, 3, 214-225.	3.6	20
394	Beyond continuationism: climate change, economic growth, and the future of world (dis)order. Cambridge Review of International Affairs, 2022, 35, 868-887.	1.2	14
395	Extended Graphical Approach for the Deployment of Negative Emission Technologies. Industrial & Engineering Chemistry Research, 2020, 59, 18977-18990.	1.8	19
396	Relevance and magnitude of 'Blue Carbon' storage in mangrove sediments: Carbon accumulation rates vs. stocks, sources vs. sinks. Estuarine, Coastal and Shelf Science, 2020, 247, 107027.	0.9	51
397	The desirability of transitions in demand: Incorporating behavioural and societal transformations into energy modelling. Energy Research and Social Science, 2020, 70, 101780.	3.0	41
398	Cross-regional drivers for CCUS deployment. Clean Energy, 2020, 4, 202-232.	1.5	12
399	The climate change mitigation potential of sugarcane based technologies for automobiles; CO2 negative emissions in sight. Transportation Research, Part D: Transport and Environment, 2020, 86, 102454.	3.2	5
400	A just compensation for leaving it in the ground: Climate easements and oil development. Environmental Science and Policy, 2020, 112, 181-188.	2.4	6
401	Global Energy System Transformations to 1.5â€‰Â°C: The Impact of Revised Intergovernmental Panel on Climate Change Carbon Budgets. Energy Technology, 2020, 8, 2000395.	1.8	18
402	Contested framings of greenhouse gas removal and its feasibility: Social and political dimensions. Wiley Interdisciplinary Reviews: Climate Change, 2020, 11, e649.	3.6	45
403	Rethinking standards of permanence for terrestrial and coastal carbon: implications for governance and sustainability. Current Opinion in Environmental Sustainability, 2020, 45, 69-77.	3.1	20
404	De-risking Renewable Energy Investments in Developing Countries: A Multilateral Guarantee Mechanism. Joule, 2020, 4, 2627-2645.	11.7	22
405	Financial precautions, carbon dioxide leakage, and the European Directive 2009/31/EC on carbon capture and storage (CCS). Climatic Change, 2020, 163, 787-806.	1.7	0
406	Novel Carbon Dioxide Utilization Technologies: A Means to an End. Frontiers in Energy Research, 2020, 8, .	1.2	25
407	Mitigation Impact of Different Harvest Scenarios of Finnish Forests That Account for Albedo, Aerosols, and Trade-Offs of Carbon Sequestration and Avoided Emissions. Frontiers in Forests and Global Change, 2020, 3, .	1.0	32
408	Opportunities and challenges in using remaining carbon budgets to guide climate policy. Nature Geoscience, 2020, 13, 769-779.	5.4	68
409	Principles for Thinking about Carbon Dioxide Removal in Just Climate Policy. One Earth, 2020, 3, 150-153.	3.6	61
410	Carbon-Negative Biofuel Production. Environmental Science & Technology, 2020, 54, 10797-10807.	4.6	26

#	Article	IF	Citations
411	Harvest Intensity Effects on Carbon Stocks and Biodiversity Are Dependent on Regional Climate in Douglas-Fir Forests of British Columbia. Frontiers in Forests and Global Change, 2020, 3, .	1.0	18
412	Combining eddy covariance measurements with process-based modelling to enhance understanding of carbon exchange rates of dairy pastures. Science of the Total Environment, 2020, 745, 140917.	3.9	8
413	Population growth and climate change: Addressing the overlooked threat multiplier. Science of the Total Environment, 2020, 748, 141346.	3.9	44
414	Alkaline thermal treatment of seaweed for high-purity hydrogen production with carbon capture and storage potential. Nature Communications, 2020, 11, 3783.	5.8	33
415	The role of industry and the private sector in promoting the â€œ4 per 1000â€•initiative and other negative emission technologies. Geoderma, 2020, 378, 114613.	2.3	13
416	Can bioenergy with carbon capture and storage result in carbon negative steel?. International Journal of Greenhouse Gas Control, 2020, 100, 103104.	2.3	46
417	Fair-share carbon dioxide removal increases major emitter responsibility. Nature Climate Change, 2020, 10, 836-841.	8.1	68
418	Comparing negative emissions and high renewable scenarios for the European power system. BMC Energy, 2020, 2, .	6.3	4
419	Assessing the climate and eutrophication impacts of grass cultivation at five sites in Sweden. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2020, 70, 605-619.	0.3	1
420	Water resource synergy management in response to climate change in China: From the perspective of urban metabolism. Resources, Conservation and Recycling, 2020, 163, 105095.	5.3	44
421	Is aquatic bioenergy with carbon capture and storage a sustainable negative emission technology? Insights from a spatially explicit environmental life-cycle assessment. Energy Conversion and Management, 2020, 224, 113300.	4.4	31
422	Assessing stakeholder preferences on low-carbon energy transitions. Energy Sources, Part B: Economics, Planning and Policy, 2020, 15, 455-491.	1.8	10
423	The role of advanced end-use technologies in long-term climate change mitigation: the interlinkage between primary bioenergy and energy end-use. Climatic Change, 2020, 163, 1659-1673.	1.7	4
424	Paris Climate Agreement: Promoting Interdisciplinary Science and Stakeholdersâ€™ Approaches for Multi-Scale Implementation of Continental Carbon Sequestration. Sustainability, 2020, 12, 6715.	1.6	7
425	EMF-33 insights on bioenergy with carbon capture and storage (BECCS). Climatic Change, 2020, 163, 1621-1637.	1.7	30
426	Foodâ€"energyâ€"water implications of negative emissions technologies in a +1.5â€‰Â°C future. Nature Climate Change, 2020, 10, 920-927.	8.1	117
427	The climate change mitigation potential of bioenergy with carbon capture and storage. Nature Climate Change, 2020, 10, 1023-1029.	8.1	149
428	Revealing Mechanistic Processes in Gas-Diffusion Electrodes During CO₂ Reduction via Impedance Spectroscopy. ACS Sustainable Chemistry and Engineering, 2020, 8, 13759-13768.	3.2	25

#	Article	IF	Citations
429	Recent Advances in the Chemistry of Metal Carbamates. Molecules, 2020, 25, 3603.	1.7	23
430	Negative emissions and the long history of carbon removal. Wiley Interdisciplinary Reviews: Climate Change, 2020, 11, e671.	3.6	114
431	A Precautionary Assessment of Systemic Projections and Promises From Sunlight Reflection and Carbon Removal Modeling. Risk Analysis, 2022, 42, 1965-1979.	1.5	15
432	Bioenergy technologies in long-run climate change mitigation: results from the EMF-33 study. Climatic Change, 2020, 163, 1603-1620.	1.7	31
433	Predicting soil carbon changes in switchgrass grown on marginal lands under climate change and adaptation strategies. GCB Bioenergy, 2020, 12, 742-755.	2.5	23
434	Can biomass supply meet the demands of bioenergy with carbon capture and storage (BECCS)?. Global Change Biology, 2020, 26, 5358-5364.	4.2	25
435	Land suitability for energy crops under scenarios of climate change and landâ€use. GCB Bioenergy, 2020, 12, 648-665.	2.5	19
436	Net-Negative Emissions through Molten Sorbents and Bioenergy with Carbon Capture and Storage. Industrial & Engineering Chemistry Research, 2020, 59, 22582-22596.	1.8	10
437	Human Rights and Precautionary Principle: Limits to Geoengineering, SRM, and IPCC Scenarios. Sustainability, 2020, 12, 8858.	1.6	37
438	Vertical Farming as a Game Changer for BECCS Technology Deployment. Sustainability, 2020, 12, 8193.	1.6	8
439	Impacts of enhanced weathering on biomass production for negative emission technologies and soil hydrology. Biogeosciences, 2020, 17, 2107-2133.	1.3	24
440	Circular futures: What Will They Look Like?. Ecological Economics, 2020, 175, 106703.	2.9	140
441	Clouded skies: How digital technologies could reshape â€œLoss and Damageâ€• from climate change. Wiley Interdisciplinary Reviews: Climate Change, 2020, 11, e650.	3.6	6
442	Primary productivity of managed and pristine forests in Sweden. Environmental Research Letters, 2020, 15, 094067.	2.2	8
443	The impact of interventions in the global land and agriâ€food sectors on Natureâ€™s Contributions to People and the UN Sustainable Development Goals. Global Change Biology, 2020, 26, 4691-4721.	4.2	70
444	Early retirement of power plants in climate mitigation scenarios. Environmental Research Letters, 2020, 15, 094064.	2.2	38
445	The value of habitats of conservation importance to climate change mitigation in the UK. Biological Conservation, 2020, 248, 108619.	1.9	6
446	Equity in allocating carbon dioxide removal quotas. Nature Climate Change, 2020, 10, 640-646.	8.1	91

#	Article	IF	Citations
447	Climate Change Study via the Centennial Trend of Climate Factors. Hydrology, 2020, 7, 25.	1.3	0
448	Forests and Decarbonization â€“ Roles of Natural and Planted Forests. Frontiers in Forests and Global Change, 2020, 3, .	1.0	63
449	JULES-BE: representation of bioenergy crops and harvesting in the Joint UK Land Environment Simulator vn5.1. Geoscientific Model Development, 2020, 13, 1123-1136.	1.3	6
450	Hydrogen production from natural gas and biomethane with carbon capture and storage â€“ A techno-environmental analysis. Sustainable Energy and Fuels, 2020, 4, 2967-2986.	2.5	164
451	Solution combustion synthesis of zirconia-stabilized calcium oxide sorbents for CO2 capture. Fuel, 2020, 269, 117432.	3.4	41
452	Investigation of CO₂ Electrolysis on Tin Foil by Electrochemical Impedance Spectroscopy. ACS Sustainable Chemistry and Engineering, 2020, 8, 5192-5199.	3.2	27
453	Negative Emissions Technologies: The Tradeoffs of Air-Capture Economics. Joule, 2020, 4, 516-520.	11.7	17
454	The practice of responsible research and innovation in â€œclimate engineeringâ€ Wiley Interdisciplinary Reviews: Climate Change, 2020, 11, e644.	3.6	27
455	The financial tradeâ€off between the production of biochar and biofuel via pyrolysis under uncertainty. Biofuels, Bioproducts and Biorefining, 2020, 14, 594-604.	1.9	11
456	An air CO₂ capture system based on the passive carbonation of large Ca(OH)₂ structures. Sustainable Energy and Fuels, 2020, 4, 3409-3417.	2.5	30
457	Towards Indicators for a Negative Emissions Climate Stabilisation Index: Problems and Prospects. Climate, 2020, 8, 75.	1.2	30
458	Evaluation of CO2 sequestration capacity in complex-boundary-shape shale gas reservoirs using projection-based embedded discrete fracture model (pEDFM). Fuel, 2020, 277, 118201.	3.4	34
459	Bioenergy with Carbon Capture and Storage (BECCS): Finding the winâ€“wins for energy, negative emissions and ecosystem servicesâ€”size matters. GCB Bioenergy, 2020, 12, 586-604.	2.5	41
460	Assessing the potential of carbon dioxide valorisation in Europe with focus on biogenic CO2. Journal of CO2 Utilization, 2020, 41, 101219.	3.3	43
461	Assessing the feasibility of carbon dioxide mitigation options in terms of energy usage. Nature Energy, 2020, 5, 720-728.	19.8	54
462	A regional assessment of landâ€based carbon mitigation potentials: Bioenergy, BECCS, reforestation, and forest management. GCB Bioenergy, 2020, 12, 346-360.	2.5	15
463	The Justice and Legitimacy of Geoengineering. Critical Review of International Social and Political Philosophy, 2020, 23, 557-563.	0.6	2
464	A deep dive into the modelling assumptions for biomass with carbon capture and storage (BECCS): a transparency exercise. Environmental Research Letters, 2020, 15, 084008.	2.2	27

#	Article	IF	Citations
465	Carbon Geoengineering and the Metabolic Rift: Solution or Social Reproduction?. Critical Sociology, 2020, 46, 1233-1249.	0.9	8
466	Mechanically Robust, Responsive Composite Membrane for a Thermoregulating Textile. ACS Omega, 2020, 5, 3899-3907.	1.6	12
467	The role of bioenergy for global deep decarbonization: CO₂ removal or lowâ€carbon energy?. GCB Bioenergy, 2020, 12, 198-212.	2.5	21
468	PopFor: A new model for estimating poplar yields. Biomass and Bioenergy, 2020, 134, 105470.	2.9	7
469	Reflections on cross-impact balances, a systematic method constructing global socio-technical scenarios for climate change research. Climatic Change, 2020, 162, 1705-1722.	1.7	25
470	Can bioenergy carbon capture and storage aggravate global water crisis?. Science of the Total Environment, 2020, 714, 136856.	3.9	22
471	Comparing the impact of future cropland expansion on global biodiversity and carbon storage across models and scenarios. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190189.	1.8	21
472	Reducing global environmental inequality: Determining regional quotas for environmental burdens through systems optimisation. Journal of Cleaner Production, 2020, 270, 121828.	4.6	16
473	Peatland Governance: The Problem of Depicting in Sustainability Governance, Regulatory Law, and Economic Instruments. Land, 2020, 9, 83.	1.2	38
474	On the feasibility of cropland and forest area expansions required to achieve long-term temperature targets. Sustainability Science, 2020, 15, 817-834.	2.5	4
475	Bioenergy in China: Evaluation of domestic biomass resources and the associated greenhouse gas mitigation potentials. Renewable and Sustainable Energy Reviews, 2020, 127, 109842.	8.2	136
476	Optimizing nitrogen fertilization rate to enhance soil carbon storage and decrease nitrogen pollution in paddy ecosystems with simultaneous straw incorporation. Agriculture, Ecosystems and Environment, 2020, 298, 106968.	2.5	32
477	A critique of climate change mitigation policy. Policy and Politics, 2020, 48, 355-378.	1.4	15
478	A coal elimination treaty 2030: Fast tracking climate change mitigation, global health and security. Earth System Governance, 2020, 3, 100046.	2.1	36
479	In silico assessment of the potential of basalt amendments to reduce N₂O emissions from bioenergy crops. GCB Bioenergy, 2021, 13, 224-241.	2.5	22
480	Restoration of retired agricultural land to wetland mitigates greenhouse gas emissions. Restoration Ecology, 2021, 29, e13314.	1.4	7
481	The Power of Natureâ€Based Solutions: How Peatlands Can Help Us to Achieve Key EU Sustainability Objectives. Advanced Sustainable Systems, 2021, 5, 2000146.	2.7	78
482	A new strategy for membrane-based direct air capture. Polymer Journal, 2021, 53, 111-119.	1.3	76

#	Article	IF	Citations
483	Comparison of tree-ring growth and eddy covariance-based ecosystem productivities in three different-aged pine plantation forests. Trees - Structure and Function, 2021, 35, 583-595.	0.9	4
484	Tensions in the energy transition: Swedish and Finnish company perspectives on bioenergy with carbon capture and storage. Journal of Cleaner Production, 2021, 280, 124527.	4.6	45
485	Achieving negative emissions inÂplastics life cycles through the conversion of biomass feedstock. Biofuels, Bioproducts and Biorefining, 2021, 15, 430-453.	1.9	13
486	Evaluating spatially explicit sharingâ€sparing scenarios for multiple environmental outcomes. Journal of Applied Ecology, 2021, 58, 655-666.	1.9	18
487	Evaluating negative emissions technologies using neutrosophic data envelopment analysis. Journal of Cleaner Production, 2021, 286, 125494.	4.6	15
488	Accounting for the role of transport and storage infrastructure costs in carbon negative bioenergy deployment. , 2021, 11, 144-164.		8
489	Potential implications of carbon dioxide removal for the sustainable development goals. Climate Policy, 2021, 21, 678-698.	2.6	59
490	The water footprint of carbon capture and storage technologies. Renewable and Sustainable Energy Reviews, 2021, 138, 110511.	8.2	54
491	Managing Landâ€based CDR: BECCS, Forests and Carbon Sequestration. Global Policy, 2021, 12, 45-56.	1.0	17
492	Can N₂O emissions offset the benefits from soil organic carbon storage?. Global Change Biology, 2021, 27, 237-256.	4.2	174
493	Biochar Application on Spodosols Soils Promotes Higher Plant Growth and Survival Rate. , 0, , .		0
494	Relevance and magnitude of 'Blue Carbon' storage in mangrove sediments: Carbon accumulation rates vs. stocks, sources vs. sinks. Estuarine, Coastal and Shelf Science, 2021, 248, 107156.	0.9	11
495	The role of negative emissions in meeting Chinaâ€™s 2060 carbon neutrality goal. Oxford Open Climate Change, 2021, 1, .	0.6	17
496	Enhancing natural cycles in agro-ecosystems to boost plant carbon capture and soil storage. Oxford Open Climate Change, 2021, 1, .	0.6	5
497	Assessment of carbon dioxide removal potential <i>via</i> BECCS in a carbon-neutral Europe. Energy and Environmental Science, 2021, 14, 3086-3097.	15.6	106
498	On the trade-offs and synergies between forest carbon sequestration and substitution. Mitigation and Adaptation Strategies for Global Change, 2021, 26, 1.	1.0	24
499	The BECCS Implementation Gapâ€"A Swedish Case Study. Frontiers in Energy Research, 2021, 8, .	1.2	28
500	On the Permissibility (Or Otherwise) of Negative Emissions. Ethics, Policy and Environment, 2021, 24, 123-136.	0.8	9

#	Article	IF	Citations
501	Carbon accounting for negative emissions technologies. Climate Policy, 2021, 21, 699-717.	2.6	33
502	Beyond 90% capture: Possible, but at what cost?. International Journal of Greenhouse Gas Control, 2021, 105, 103239.	2.3	74
503	Unreflective use of old data sources produced echo chambers in the waterâ€“electricity nexus. Nature Sustainability, 2021, 4, 537-546.	11.5	5
504	Uncertainty of modelled bioenergy with carbon capture and storage due to variability of input data. GCB Bioenergy, 2021, 13, 691-707.	2.5	7
505	Altered plant carbon partitioning enhanced forest ecosystem carbon storage after 25 years of nitrogen additions. New Phytologist, 2021, 230, 1435-1448.	3.5	51
506	Negative-emissions technology portfolios to meet the 1.5â€¯Â°C target. Global Environmental Change, 2021, 67, 102238.	3.6	52
507	Fuzzy optimization model for enhanced weathering networks using industrial waste. Clean Technologies and Environmental Policy, 2022, 24, 21-37.	2.1	11
508	The zero-emissions cost of energy: a policy concept. Progress in Energy, 0, , .	4.6	0
509	Offsetting unabated agricultural emissions with CO2 removal to achieve ambitious climate targets. PLoS ONE, 2021, 16, e0247887.	1.1	5
510	Amine/Carboxylic Acid Ionic Liquid Composite Membranes for CO₂ Separation. Industrial & Engineering Chemistry Research, 2021, 60, 4405-4419.	1.8	7
511	On life-cycle sustainability optimization of enhanced weathering systems. Journal of Cleaner Production, 2021, 289, 125836.	4.6	16
512	Irrigation of biomass plantations may globally increase water stress more than climate change. Nature Communications, 2021, 12, 1512.	5.8	54
513	The case for estimating carbon return on investment (CROI) for CCUS platforms. Applied Energy, 2021, 285, 116394.	5.1	27
514	Evolution patterns of bioenergy with carbon capture and storage (BECCS) from a science mapping perspective. Science of the Total Environment, 2021, 766, 144318.	3.9	13
515	Carbon Purchase Agreements, Dactories, and Supply-Chain Innovation: What Will It Take to Scale-Up Modular Direct Air Capture Technology to a Gigatonne Scale. Frontiers in Climate, 2021, 3, .	1.3	6
516	Light-Driven CO2 Reduction by Co-Cytochrome b562. Frontiers in Molecular Biosciences, 2021, 8, 609654.	1.6	10
517	Effects of Earth system feedbacks on the potential mitigation of large-scale tropical forest restoration. Biogeosciences, 2021, 18, 2627-2647.	1.3	18
518	Global scenarios of irrigation water abstractions for bioenergy production: a systematic review. Hydrology and Earth System Sciences, 2021, 25, 1711-1726.	1.9	8

#	Article	IF	Citations
519	Alternative carbon price trajectories can avoid excessive carbon removal. Nature Communications, 2021, 12, 2264.	5.8	55
521	Life cycle cost assessment of biomass co-firing power plants with CO2 capture and storage considering multiple incentives. Energy Economics, 2021, 96, 105173.	5.6	45
522	Cost-effective implementation of the Paris Agreement using flexible greenhouse gas metrics. Science Advances, 2021, 7, .	4.7	29
523	The economics of bioenergy with carbon capture and storage (BECCS) deployment in a 1.5ÂÂ°C or 2ÂÂ°C world. Global Environmental Change, 2021, 68, 102262.	3.6	53
524	All options, not silver bullets, needed to limit global warming to 1.5 Â°C: a scenario appraisal. Environmental Research Letters, 2021, 16, 064037.	2.2	58
525	Assessing climate policies: Catastrophe avoidance and the right to sustainable development. Politics, Philosophy & Economics, 2021, 20, 127-150.	0.6	6
526	Defining Targets for Adsorbent Material Performance to Enable Viable BECCS Processes. Jacs Au, 2021, 1, 795-806.	3.6	23
527	Future Prospects of Direct Air Capture Technologies: Insights From an Expert Elicitation Survey. Frontiers in Climate, 2021, 3, .	1.3	24
528	Reckless or righteous? Reviewing the sociotechnical benefits and risks of climate change geoengineering. Energy Strategy Reviews, 2021, 35, 100656.	3.3	33
529	Regional variation in the effectiveness of methane-based and land-based climate mitigation options. Earth System Dynamics, 2021, 12, 513-544.	2.7	6
530	Perceptions of naturalness predict US public support for Soil Carbon Storage as a climate solution. Climatic Change, 2021, 166, 1.	1.7	15
531	1.5â€‰Â°C degrowth scenarios suggest the need for new mitigation pathways. Nature Communications, 2021, 12, 2676.	5.8	154
532	Potential and risks of hydrogen-based e-fuels in climate change mitigation. Nature Climate Change, 2021, 11, 384-393.	8.1	264
533	Applying a scienceâ€based systems perspective to dispel misconceptions about climate effects of forest bioenergy. GCB Bioenergy, 2021, 13, 1210-1231.	2.5	49
534	Deep CCS: Moving Beyond 90% Carbon Dioxide Capture. Environmental Science & Technology, 2021, 55, 8524-8534.	4.6	32
535	Developing a spatially explicit modelling and evaluation framework for integrated carbon sequestration and biodiversity conservation: Application in southern Finland. Science of the Total Environment, 2021, 775, 145847.	3.9	18
536	Climate mitigation policies and the potential pathways to conflict: Outlining a research agenda. Wiley Interdisciplinary Reviews: Climate Change, 2021, 12, e722.	3.6	11
537	Three Decades of Climate Mitigation: Why Haven't We Bent the Global Emissions Curve?. Annual Review of Environment and Resources, 2021, 46, 653-689.	5.6	167

#	Article	IF	Citations
538	Confronting mitigation deterrence in low-carbon scenarios. Environmental Research Letters, 2021, 16, 064099.	2.2	29
539	Energy system developments and investments in the decisive decade for the Paris Agreement goals. Environmental Research Letters, 2021, 16, 074020.	2.2	41
540	Introduction: Justice and food security in a changing climate. , 2021, , .		7
541	Impact of carbon dioxide removal technologies on deep decarbonization of the electric power sector. Nature Communications, 2021, 12, 3732.	5.8	63
543	What â€˜climate positive futureâ€™? Emerging sociotechnical imaginaries of negative emissions in Sweden. Energy Research and Social Science, 2021, 76, 102086.	3.0	19
544	Long-term temperature and sea-level rise stabilization before and beyond 2100: Estimating the additional climate mitigation contribution from Chinaâ€™s recent 2060 carbon neutrality pledge. Environmental Research Letters, 2021, 16, 074032.	2.2	54
545	It Would Be Irresponsible, Unethical, and Unlawful to Rely on NETs at Large Scale Instead of Mitigation. , 2021, , 241-256.		0
546	Carbon dioxide removal technologies are not born equal. Environmental Research Letters, 2021, 16, 074021.	2.2	45
547	Costs of avoiding net negative emissions under a carbon budget. Environmental Research Letters, 2021, 16, 064071.	2.2	3
548	A fuzzy optimization model for planning integrated terrestrial carbon management networks. Clean Technologies and Environmental Policy, 2022, 24, 289-301.	2.1	6
549	The levelized cost of negative CO2 emissions from thermochemical conversion of biomass coupled with carbon capture and storage. Energy Conversion and Management, 2021, 237, 114115.	4.4	38
550	Global bioenergy with carbon capture and storage potential is largely constrained by sustainable irrigation. Nature Sustainability, 2021, 4, 884-891.	11.5	35
551	Potential CO2 removal from enhanced weathering by ecosystem responses to powdered rock. Nature Geoscience, 2021, 14, 545-549.	5.4	69
552	Bioenergy for climate change mitigation: Scale and sustainability. GCB Bioenergy, 2021, 13, 1346-1371.	2.5	43
553	Revealing the widespread potential of forests to increase low level cloud cover. Nature Communications, 2021, 12, 4337.	5.8	45
554	Operationalizing the net-negative carbon economy. Nature, 2021, 596, 377-383.	13.7	87
555	A mixedâ€effect model approach for assessing landâ€based mitigation in integrated assessment models: A regional perspective. Global Change Biology, 2021, 27, 4671-4685.	4.2	4
556	An industrial policy framework for transforming energy and emissions intensive industries towards zero emissions. Climate Policy, 2021, 21, 1053-1065.	2.6	66

#	Article	IF	Citations
557	CO2 mitigation or removal: The optimal uses of biomass in energy system decarbonization. IScience, 2021, 24, 102765.	1.9	26
558	Cancel (Out) Emissions? The Envisaged Role of Carbon Dioxide Removal Technologies in Long-Term National Climate Strategies. Frontiers in Climate, 2021, 3, .	1.3	25
559	Antagonistic interaction between biochar and nitrogen addition on soil greenhouse gas fluxes: A global synthesis. GCB Bioenergy, 2021, 13, 1636-1648.	2.5	13
560	Epigenetics for Crop Improvement in Times of Global Change. Biology, 2021, 10, 766.	1.3	53
561	The role of soils in the regulation of ocean acidification. Philosophical Transactions of the Royal Society B: Biological Sciences, 2021, 376, 20200174.	1.8	17
562	The greenhouse gas removal potential of bioenergy with carbon capture and storage (BECCS) to support the UK's net-zero emission target. Biomass and Bioenergy, 2021, 151, 106164.	2.9	38
563	Impacts of Irrigation and Vegetation Growth on Summer Rainfall in the Taklimakan Desert. Advances in Atmospheric Sciences, 2021, 38, 1863-1872.	1.9	5
564	Direct air capture from demonstration to commercialization stage: A bibliometric analysis. International Journal of Energy Research, 2022, 46, 383-396.	2.2	16
565	Features and Interrelation Amongst Technology Terminologies Related to Climate Change. Journal of Climate Change Research, 2021, 12, 307-332.	0.1	0
566	Cutting through the noise on negative emissions. Joule, 2021, 5, 1956-1970.	11.7	9
567	Business Models for Negative Emissions From Waste-to-Energy Plants. Frontiers in Climate, 2021, 3, .	1.3	5
568	Life Cycle Assessment of Direct Air Carbon Capture and Storage with Low-Carbon Energy Sources. Environmental Science & Technology, 2021, 55, 11397-11411.	4.6	99
569	Assessing the Carbon Footprint of Biochar from Willow Grown on Marginal Lands in Finland. Sustainability, 2021, 13, 10097.	1.6	17
570	The influence of particle size on the potential of enhanced basalt weathering for carbon dioxide removal - Insights from a regional assessment. Journal of Cleaner Production, 2021, 315, 128178.	4.6	39
571	A low GHG development pathway design framework for agriculture, forestry and land use. Energy Strategy Reviews, 2021, 37, 100683.	3.3	6
572	Methane removal and the proportional reductions in surface temperature and ozone. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20210104.	1.6	33
573	Enhancement of Electrocatalytic CO₂ Reduction to Methane by CoTMPyP when Hosted in a 3D Covalent Graphene Framework. ACS Applied Energy Materials, 2021, 4, 10033-10041.	2.5	9
574	Assessment of optimal conditions for the performance of greenhouse gas removal methods. Journal of Environmental Management, 2021, 294, 113039.	3.8	12

#	Article	IF	Citations
575	The potential contribution of terrestrial natureâ€based solutions to a national â€˜net zeroâ€™ climate target. Journal of Applied Ecology, 2021, 58, 2349-2360.	1.9	30
576	Can we live within environmental limits and still reduce poverty? Degrowth or decoupling?. Development Policy Review, 2022, 40, .	1.0	27
577	Land-use change from food to energy: meta-analysis unravels effects of bioenergy on biodiversity and cultural ecosystem services. Environmental Research Letters, 2021, 16, 113005.	2.2	13
578	Atmospheric methane removal: a research agenda. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200454.	1.6	44
579	Equilibrium Modeling for Environmental Science: Exploring the Nexus of Economic Systems and Environmental Change. Earth's Future, 2021, 9, e2020EF001923.	2.4	6
580	Pinch-based planning of terrestrial carbon management networks. Cleaner Engineering and Technology, 2021, 4, 100141.	2.1	8
581	Life cycle meta-analysis of carbon capture pathways in power plants: Implications for bioenergy with carbon capture and storage. International Journal of Greenhouse Gas Control, 2021, 111, 103468.	2.3	7
582	Hubs and clusters approach to unlock the development of carbon capture and storage â€“ Case study in Spain. Applied Energy, 2021, 300, 117418.	5.1	40
583	Viewpoint: Rigorous monitoring is necessary to guide food system transformation in the countdown to the 2030 global goals. Food Policy, 2021, 104, 102163.	2.8	110
584	Effects of agricultural land abandonment on soil organic carbon stocks and composition of soil organic matter in the Central Spanish Pyrenees. Catena, 2021, 205, 105441.	2.2	17
585	Diverse system layouts promising fine performance demonstration: A comprehensive review on present designs of SOFC-based energy systems for building applications. Energy Conversion and Management, 2021, 245, 114539.	4.4	18
586	Evaluating the use of BECCS and afforestation under Chinaâ€™s carbon-neutral target for 2060. Applied Energy, 2021, 299, 117263.	5.1	80
587	A generic algebraic targeting approach for integration of renewable energy sources, CO2 capture and storage and negative emission technologies in carbon-constrained energy planning. Energy, 2021, 235, 121280.	4.5	27
588	Degradation study on tin- and bismuth-based gas-diffusion electrodes during electrochemical CO2 reduction in highly alkaline media. Journal of Energy Chemistry, 2021, 62, 367-376.	7.1	30
589	Bringing greenhouse gas removal down to earth: Stakeholder supply chain appraisals reveal complex challenges. Global Environmental Change, 2021, 71, 102369.	3.6	14
590	Organic soil carbon in Austria â€“ Status quo and foreseeable trends. Geoderma, 2021, 402, 115214.	2.3	6
591	Consumptive life cycle water use of biomass-to-power plants with carbon capture and sequestration. Applied Energy, 2021, 303, 117702.	5.1	13
592	Climate change mitigation measures for global net-zero emissions and the roles of CO2 capture and utilization and direct air capture. Energy and Climate Change, 2021, 2, 100057.	2.2	26

#	Article	IF	Citations
593	Net-zero emissions energy systems: What we know and do not know. Energy and Climate Change, 2021, 2, 100049.	2.2	38
594	Life cycle assessment of carbon dioxide removal technologies: a critical review. Energy and Environmental Science, 2021, 14, 1701-1721.	15.6	141
595	Integrated biochar research: A roadmap. Journal of Soils and Water Conservation, 2021, 76, 24A-29A.	0.8	24
596	Bioenergy Policies Worldwide. , 2021, , .		2
598	Carbonâ€Neutral Pathways for the United States. AGU Advances, 2021, 2, e2020AV000284.	2.3	215
599	Emergency deployment of direct air capture as a response to the climate crisis. Nature Communications, 2021, 12, 368.	5.8	101
600	The contradiction of the sustainable development goals: Growth versus ecology on a finite planet. Sustainable Development, 2019, 27, 873-884.	6.9	16
601	Uncertainties in Forecasting the Response of Polar Bears to Global Climate Change. Animal Welfare, 2017, , 463-473.	1.0	36
602	Regional Climate Projections. , 2018, , 139-149.		2
603	Climate Change: Challenges to Reduce Global Warming and Role of Biofuels. , 2020, , 13-54.		4
604	Ranking negative emissions technologies under uncertainty. Heliyon, 2020, 6, e05730.	1.4	17
606	If humans design the planet: A call for psychological scientists to engage with climate engineering.. American Psychologist, 2021, 76, 768-780.	3.8	3
607	Govern land as a global commons. Nature, 2017, 546, 28-29.	13.7	36
608	Define limits for temperature overshoot targets. Nature Geoscience, 2017, 10, 881-882.	5.4	41
609	A global yield dataset for major lignocellulosic bioenergy crops based on field measurements. Scientific Data, 2018, 5, 180169.	2.4	35
610	Understanding the Role of CCS Deployment in Meeting Ambitious Climate Goals. RSC Energy and Environment Series, 2019, , 8-35.	0.2	4
611	Negative Emissions Technologies. RSC Energy and Environment Series, 2019, , 447-511.	0.2	2
612	Direct mineralization of atmospheric CO₂using natural rocks in Japan. Environmental Research Letters, 2020, 15, 124018.	2.2	14

#	Article	IF	Citations
613	Hysteresis of the Earth system under positive and negative CO₂ emissions. Environmental Research Letters, 2020, 15, 124026.	2.2	27
614	Low-carbon GeoEnergy resource options in the Midland Valley of Scotland, UK. Scottish Journal of Geology, 2019, 55, 93-106.	0.1	4
615	Ethics in climate change: a climate scientist's perspective. Geological Society Special Publication, 2021, 508, 285-296.	0.8	5
616	Large-Scale Carbon Dioxide Removal: The Problem of Phasedown. Global Environmental Politics, 2020, 20, 70-92.	1.7	14
617	Two decades of Earth system modeling with an emphasis on Model for Interdisciplinary Research on Climate (MIROC). Progress in Earth and Planetary Science, 2020, 7, .	1.1	36
618	Biogeophysical and biogeochemical impacts of land-use change simulated by MIROC-ES2L. Progress in Earth and Planetary Science, 2020, 7, .	1.1	10
619	Food supply and bioenergy production within the global cropland planetary boundary. PLoS ONE, 2018, 13, e0194695.	1.1	38
620	Plastic Pollution in Soils: Governance Approaches to Foster Soil Health and Closed Nutrient Cycles. Environments - MDPI, 2020, 7, 38.	1.5	25
621	Addressing the gender differentiated investment risks to climate-smart agriculture. AIMS Agriculture and Food, 2017, 2, 56-74.	0.8	11
622	Energy policy and economics under climate change. AIMS Energy, 2018, 6, 272-290.	1.1	17
623	Mapping the yields of lignocellulosic bioenergy crops from observations at the global scale. Earth System Science Data, 2020, 12, 789-804.	3.7	26
624	The shared socio-economic pathway (SSP) greenhouse gas concentrations and their extensions to 2500. Geoscientific Model Development, 2020, 13, 3571-3605.	1.3	539
625	Simulating second-generation herbaceous bioenergy crop yield using the global hydrological model H08 (v.bio1). Geoscientific Model Development, 2020, 13, 6077-6092.	1.3	8
626	Marine Microalgae: Climate, Energy, and Food Security from the Sea. Oceanography, 2016, 29, .	0.5	33
630	Assessing the carbon capture potential of a reforestation project. Scientific Reports, 2021, 11, 19907.	1.6	25
631	Greenhouse Gas Inventory Model for Biochar Additions to Soil. Environmental Science & Technology, 2021, 55, 14795-14805.	4.6	68
632	Land-based implications of early climate actions without global net-negative emissions. Nature Sustainability, 2021, 4, 1052-1059.	11.5	27
633	Capturing atmospheric carbon dioxide by depleting inorganic carbon in municipal wastewater. International Journal of Greenhouse Gas Control, 2021, 111, 103472.	2.3	4

#	Article	IF	Citations
634	The role of direct air capture and negative emissions technologies in the shared socioeconomic pathways towards +1.5 Â°C and +2 Â°C futures. Environmental Research Letters, 2021, 16, 114012.	2.2	40
635	Phasing out the blast furnace to meet global climate targets. Joule, 2021, 5, 2646-2662.	11.7	42
636	Upstream decarbonization through a carbon takeback obligation: An affordable backstop climate policy. Joule, 2021, 5, 2777-2796.	11.7	28
637	Prospects for carbon-neutral maritime fuels production in Brazil. Journal of Cleaner Production, 2021, 326, 129385.	4.6	21
638	The Paris Agreement and Climate Change Countermeasure Technologies. Kagaku Kogaku Ronbunshu, 2017, 43, 171-177.	0.1	0
639	Protecting Health from Climate Change Requires Concerted Action and Radical Approaches: A Discussion of Recent Progress in International Climate Negotiations. International Journal of Occupational and Environmental Medicine, 2017, 8, 1-6.	4.1	0
641	Whatâ€™s the best way to use solar energy?. MOJ Solar and Photoenergy Systems, 2017, 1, .	0.0	1
643	The UK Path and the Role of NETs to Achieve Decarbonisation. Energy, Environment, and Sustainability, 2019, , 87-109.	0.6	1
644	Technology Policy and Road Map of Battery. , 2019, , 1-59.		0
646	CO2 Sequestration: Processes and Methodologies. , 2019, , 619-668.		2
647	Le discours de la promesse chez les promoteurs deÂlâ€™ingÃ©nierie climatique. Socio, 2019, , 133-157.	0.1	2
648	Moral Conflicts of several â€œGreenâ€•terrestrial Negative Emission Technologies regarding the Human Right to Adequate Food â€" A Review. Advances in Geosciences, 0, 49, 37-45.	12.0	2
649	Geo-Wedges: A Portfolio Approach to Geoengineering the Climate. , 2020, , .		1
650	The role of prior assumptions in carbon budget calculations. Earth System Dynamics, 2020, 11, 563-577.	2.7	4
651	Computational Investigation of the Thermochemistry of the CO₂ Capture Reaction by Ethylamine, Propylamine, and Butylamine in Aqueous Solution Considering the Full Conformational Space via Boltzmann Statistics. Journal of Physical Chemistry A, 2021, 125, 9578-9593.	1.1	3
652	THE LONG-TERM CHANGES OF EMISSION DRIVING FORCES IN EUROPEAN POWER AND HEAT SECTOR AND THEIR IMPACT ON THE DECARBONIZATION PATHWAYS IN EU ENERGY SECTOR SINCE 1990. International Journal of Big Data Mining for Global Warming, 2020, 02, 2050008.	0.5	0
654	Climate Action: The Feasibility of Climate Intervention on a Global Scale. AESS Interdisciplinary Environmental Studies and Sciences Series, 2021, , 33-91.	0.2	0
655	Quick Fire Set of Questions About CO2 that Need to Be Answered. SpringerBriefs in Applied Sciences and Technology, 2020, , 81-98.	0.2	0

#	Article	IF	Citations
656	Climate Change in the XXIst and Following Centuries: A Risk or a Threat?. Frontiers in Sociology and Social Research, 2020, , 143-155.	2.5	1
657	Ethics, Energy Transition, and Ecological Citizenship. , 2020, , 204-204.		4
658	Life Cycle and Techno-Economic Assessment Templates for Emerging Carbon Management Technologies. Frontiers in Sustainability, 2021, 2, .	1.3	15
659	Stakeholdersâ€™ Risk Perceptions of Decarbonised Energy System: Insights into Patterns of Behaviour. Energies, 2021, 14, 7205.	1.6	3
660	Management of Grazed Landscapes to Increase Soil Carbon Stocks in Temperate, Dryland Grasslands. Frontiers in Sustainable Food Systems, 2020, 4, .	1.8	19
661	Evaluation of Koreaâ€™s Mid- and Long-Term Greenhouse Gas Mitigation Targets: Meta-Analysis of Burden Sharing Based on Equity. Journal of Climate Change Research, 2021, 12, 493-504.	0.1	3
662	How to Reach the New Green Deal Targets: Analysing the Necessary Burden Sharing within the EU Using a Multi-Model Approach. Energies, 2021, 14, 7971.	1.6	5
663	Where Has All the Carbon Gone?. Annual Review of Earth and Planetary Sciences, 2022, 50, .	4.6	5
664	Cost reductions in renewables can substantially erode the value of carbon capture and storage in mitigation pathways. One Earth, 2021, 4, 1588-1601.	3.6	26
666	Delaying carbon dioxide removal in the European Union puts climate targets at risk. Nature Communications, 2021, 12, 6490.	5.8	30
667	Global implications of cropâ€based bioenergy with carbon capture and storage for terrestrial vertebrate biodiversity. GCB Bioenergy, 2022, 14, 307-321.	2.5	18
668	Regional and national changes in soil carbon stocks with land-use change from 1990 to 2016 for New Zealand. Regional Environmental Change, 2021, 21, 1.	1.4	6
669	A review of technologies for carbon capture, sequestration, and utilization: Cost, capacity, and technology readiness. , 2022, 12, 200-230.		44
670	Post COVID-19 ENERGY sustainability and carbon emissions neutrality. Energy, 2022, 241, 122801.	4.5	57
671	The Impact of Socio-Economic Inertia and Restrictions on Net-Negative Emissions on Cost-Effective Carbon Price Pathways. Frontiers in Climate, 2021, 3, .	1.3	1
672	Mixed-Linker Metal-Organic frameworks for carbon and hydrocarbons capture under moist conditions. Chemical Engineering Journal, 2022, 433, 134447.	6.6	16
673	An Overview of Bioenergy with Carbon Capture and Storage Process as a Negative Emission Technology. Alkhas, 0, , .	0.3	1
674	The Role of Floods on Pathogen Dispersion. Handbook of Environmental Chemistry, 2021, , .	0.2	1

#	Article	IF	Citations
677	Effect of hydrogen on compression-ignition (CI) engine fueled with vegetable oil/biodiesel from various feedstocks: A review. International Journal of Hydrogen Energy, 2022, 47, 37648-37667.	3.8	70
678	Demand vs supply-side approaches to mitigation: What final energy demand assumptions are made to meet 1.5 and 2ÂÂ°C targets?. Global Environmental Change, 2022, 72, 102448.	3.6	10
679	How Much New Forest Land Would it Take to Offset a Coal Plantâ€™s Greenhouse Gas Emissions? An Engineering Case Study of Georgiaâ€™s Plant Scherer. Case Studies in the Environment, 2022, 6, .	0.4	1
680	Optimal gas-electric energy system decarbonization planning. Advances in Applied Energy, 2022, 6, 100086.	6.6	14
681	Delivering negative emissions innovation on the right track: A patent analysis. Renewable and Sustainable Energy Reviews, 2022, 158, 112169.	8.2	5
682	Extended graphical approach for the implementation of energy-consuming negative emission technologies. Renewable and Sustainable Energy Reviews, 2022, 158, 112082.	8.2	10
683	From biomass to hydrochar: Evolution on elemental composition, morphology, and chemical structure. Journal of the Energy Institute, 2022, 101, 194-200.	2.7	27
684	Plant conversions and abatement technologies cannot prevent stranding of power plant assets in 2â€‰Â°C scenarios. Nature Communications, 2022, 13, 806.	5.8	13
685	Optimal Eco-Compensation for Forest-Based Carbon Sequestration Programs: A Case Study of Larch Carbon Sink Plantations in Gansu, Northwest China. Forests, 2022, 13, 268.	0.9	3
686	Ecological macroeconomic assessment of meeting a carbon budget without negative emissions. Global Sustainability, 2022, 5, .	1.6	3
687	Direct air capture: process technology, techno-economic and socio-political challenges. Energy and Environmental Science, 2022, 15, 1360-1405.	15.6	176
688	The Problems with Tech Fixes. SpringerBriefs in Energy, 2022, , 15-33.	0.2	0
689	Coping with climate chang. , 2022, , 143-233.		2
690	An Integrated Bottom-Up Optimization to Investigate the Role of Beccs in Transitioning Towards a Net-Zero Energy System: A Case Study from Gujarat, India. SSRN Electronic Journal, 0, , .	0.4	0
691	Carbon Pricing and the Elasticity of Co2 Emissions. SSRN Electronic Journal, 0, , .	0.4	0
693	Low Energy Demand Scenario for Feasible Deep Decarbonisation: Whole Energy Systems Modelling for Ireland. SSRN Electronic Journal, 0, , .	0.4	0
694	Diversifying models for analysing global change scenarios and sustainability pathways. Global Sustainability, 2022, 5, .	1.6	10
696	Assessment of the Carbon Budget of Local Governments in South Korea. Atmosphere, 2022, 13, 342.	1.0	4

#	Article	IF	Citations
697	Probabilistic projections of baseline twenty-first century CO2 emissions using a simple calibrated integrated assessment model. Climatic Change, 2022, 170, 37.	1.7	10
698	Exploring the Barriers to Implementation of Carbon Capture, Utilisation and Storage in Nigeria. , 2022, , .		2
699	Temporary nature-based carbon removal can lower peak warming in a well-below 2â€‰Â°C scenario. Communications Earth & Environment, 2022, 3, .	2.6	45
701	Quantifying synergies and trade-offs in the global water-land-food-climate nexus using a multi-model scenario approach. Environmental Research Letters, 2022, 17, 045004.	2.2	11
702	Biogeochemical Timescales of Climate Change Onset and Recovery in the North Atlantic Interior Under Rapid Atmospheric CO₂ Forcing. Journal of Geophysical Research: Oceans, 2022, 127, .	1.0	6
703	Decadal Changes of Organic Carbon, Nitrogen, and Acidity of Austrian Forest Soils. Soil Systems, 2022, 6, 28.	1.0	4
704	Life cycle and technoâ€economic assessments of direct air capture processes: An integrated review. International Journal of Energy Research, 2022, 46, 10320-10344.	2.2	24
705	Zero-carbon steel production: The opportunities and role for Australia. Energy Policy, 2022, 163, 112811.	4.2	17
706	A promising microalgal wastewater cyclic cultivation technology: Dynamic simulations, economic viability, and environmental suitability. Water Research, 2022, 217, 118411.	5.3	18
707	European pollen-based REVEALS land-cover reconstructions for the Holocene: methodology, mapping and potentials. Earth System Science Data, 2022, 14, 1581-1619.	3.7	42
708	Optimization of enhanced weathering networks with alternative transportation modes. Carbon Resources Conversion, 2022, 5, 167-176.	3.2	7
709	Mid-Holocene European climate revisited: New high-resolution regional climate model simulations using pollen-based land-cover. Quaternary Science Reviews, 2022, 281, 107431.	1.4	18
710	Assessing the physical potential capacity of direct air capture with integrated supply of lowâ€carbon energy sources. , 2022, 12, 170-188.		8
711	Particle capture in a model chaotic flow. Physical Review E, 2021, 104, 064203.	0.8	1
712	Global cooling induced by biophysical effects of bioenergy crop cultivation. Nature Communications, 2021, 12, 7255.	5.8	19
713	A global overview of studies about land management, landâ€use change, and climate change effects on soil organic carbon. Global Change Biology, 2022, 28, 1690-1702.	4.2	69
714	Impact of bioenergy crop expansion on climateâ€“carbon cycle feedbacks in overshoot scenarios. Earth System Dynamics, 2022, 13, 779-794.	2.7	8
715	A review of existing and potential blue carbon contributions to climate change mitigation in the Anthropocene. Journal of Applied Ecology, 2022, 59, 1686-1699.	1.9	23

#	Article	IF	Citations
716	Negative Emissions as the New Frontier of Photoelectrochemical CO₂ Reduction. Advanced Energy Materials, 2022, 12, .	10.2	8
722	Progress in urban resilience research and hotspot analysis: a global scientometric visualization analysis using CiteSpace. Environmental Science and Pollution Research, 2022, 29, 63674-63691.	2.7	10
723	Human and planetary health implications of negative emissions technologies. Nature Communications, 2022, 13, 2535.	5.8	12
724	Environmental and health impacts of atmospheric CO2 removal by enhanced rock weathering depend on nationsâ€™ energy mix. Communications Earth & Environment, 2022, 3, .	2.6	16
725	Fuzzy mixed-integer linear and quadratic programming models for planning negative emissions technologies portfolios with synergistic interactions. Cleaner Engineering and Technology, 2022, 9, 100507.	2.1	5
726	Albedo on cropland: Field-scale effects of current agricultural practices in Northern Europe. Agricultural and Forest Meteorology, 2022, 321, 108978.	1.9	4
727	Albedo impacts of current agricultural land use: Crop-specific albedo from MODIS data and inclusion in LCA of crop production. Science of the Total Environment, 2022, 835, 155455.	3.9	7
728	Capture or curtail: The potential and performance of direct air capture powered through excess renewable electricity. Energy Conversion and Management: X, 2022, 15, 100230.	0.9	4
729	Policy incentives for Greenhouse Gas Removal Techniques: the risks of premature inclusion in carbon markets and the need for a multi-pronged policy framework. Energy and Climate Change, 2022, 3, 100074.	2.2	8
730	Biochar <scp>supplyâ€chain</scp> and challenges to commercialization. GCB Bioenergy, 2023, 15, 7-23.	2.5	10
731	Low energy demand scenario for feasible deep decarbonisation: Whole energy systems modelling for Ireland. Renewable and Sustainable Energy Transition, 2022, 2, 100024.	1.4	7
732	Balancing greenhouse gas sources and sinks: Inventories, budgets, and climate policy. , 2022, , 3-28.		0
733	Emerging Solidâ€toâ€Solid Phaseâ€Change Materials for Thermalâ€Energy Harvesting, Storage, and Utilization. Advanced Materials, 2022, 34, .	11.1	59
734	The potential role of olive groves to deliver carbon dioxide removal in a carbon-neutral Europe: Opportunities and challenges. Renewable and Sustainable Energy Reviews, 2022, 165, 112609.	8.2	13
735	Rates of atmospheric CO2 capture using magnesium oxide powder. International Journal of Greenhouse Gas Control, 2022, 119, 103701.	2.3	10
737	CO₂ removal and 1.5 Â°C: what, when, where, and how?. Energy Advances, 2022, 1, 524-561.	1.4	7
738	Landâ€based climate solutions for the United States. Global Change Biology, 2022, 28, 4912-4919.	4.2	12
739	The global potential for increased storage of carbon on land. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	54

#	Article	IF	Citations
740	Agroforestry in Shade Coffee Plantations as an Emission Reduction Strategy for Tropical Regions: Public Acceptance and the Role of Tree Banking. Frontiers in Energy Research, 0, 10, .	1.2	1
741	<scp> CO ₂ </scp> elevation and nutrient patchiness interactively affect morphology, nitrogen uptake, partitioning and use efficiency of <i>Nicotiana tabacum</i> L. (tobacco) during anthesis. Journal of Agronomy and Crop Science, 0, , .	1.7	1
742	Climate policy for a net-zero future: ten recommendations for Direct Air Capture. Environmental Research Letters, 2022, 17, 074014.	2.2	21
743	Current global efforts are insufficient to limit warming to 1.5Â°C. Science, 2022, 376, 1404-1409.	6.0	117
744	The policy discourse on negative emissions, land-based technologies, and the Global South. Global Environmental Change, 2022, 75, 102550.	3.6	7
745	IPCC emission scenarios: How did critiques affect their quality and relevance 1990â€"2022?. Global Environmental Change, 2022, 75, 102538.	3.6	20
746	The life cycle environmental impacts of negative emission technologies in North America. Sustainable Production and Consumption, 2022, 32, 880-894.	5.7	7
747	Evolution of kraft lignin during hydrothermal treatment under different reaction conditions. Journal of the Energy Institute, 2022, 103, 147-153.	2.7	21
748	An integrated bottom-up optimization to investigate the role of BECCS in transitioning towards a net-zero energy system: A case study from Gujarat, India. Energy, 2022, 255, 124508.	4.5	4
749	Recent advances in direct air capture by adsorption. Chemical Society Reviews, 2022, 51, 6574-6651.	18.7	89
750	Environmental trade-offs of direct air capture technologies in climate change mitigation toward 2100. Nature Communications, 2022, 13, .	5.8	35
751	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-Productionâ€"Part 1. Frontiers in Energy Research, 0, 10, .	1.2	2
752	Modeling the effect of budget allocation on the abatement of atmospheric carbon dioxide. Computational and Applied Mathematics, 2022, 41, .	1.0	3
755	Analysis of Agricultural Biomass Energy Use and Greenhouse Gas Reduction Evidence from China. Journal of Environmental and Public Health, 2022, 2022, 1-11.	0.4	1
756	Early systems change necessary for catalyzing long-term sustainability in a post-2030 agenda. One Earth, 2022, 5, 792-811.	3.6	15
757	Snapshot of the Carbon Dioxide Removal certification and standards ecosystem (2021â€"2022). Climate Policy, 2022, 22, 1319-1332.	2.6	12
758	Uncovering the Research Gaps to Alleviate the Negative Impacts of Climate Change on Food Security: A Review. Frontiers in Plant Science, 0, 13, .	1.7	65
759	Formation and evolution of pectin-derived hydrothermal carbon from pectin. Fuel, 2022, 326, 124997.	3.4	16

#	Article	IF	Citations
760	The analysis and evaluation of direct air capture adsorbents on the material characterization level. Chemical Engineering Journal, 2022, 450, 137958.	6.6	15
761	Environmental Issues: Greenhouse Gas Emissions. , 2023, , .		0
762	Low-temperature hydrothermal carbonization of pectin enabled by high pressure. Journal of Analytical and Applied Pyrolysis, 2022, 166, 105627.	2.6	20
763	Definitions and implications of climate-neutral aviation. Nature Climate Change, 2022, 12, 761-767.	8.1	22
764	Mapping the field of bioenergy with carbon capture and storage (BECCS): scientific cooperation and co-citation analyses. Environmental Science and Pollution Research, 2023, 30, 3402-3415.	2.7	2
765	Drivers of Future Physical Water Scarcity and Its Economic Impacts in Latin America and the Caribbean. Earth's Future, 2022, 10, .	2.4	7
766	Prospects for Simultaneously Capturing Carbon Dioxide and Harvesting Water from Air. Advanced Materials, 2022, 34, .	11.1	16
767	Using cumulative carbon budgets and corporate carbon disclosure to inform ambitious corporate emissions targets and longâ€term mitigation pathways. Journal of Industrial Ecology, 2022, 26, 1747-1759.	2.8	6
768	(In)justice in modelled climate futures: A review of integrated assessment modelling critiques through a justice lens. Energy Research and Social Science, 2022, 92, 102781.	3.0	17
769	The impact of climate on solvent-based direct air capture systems. Applied Energy, 2022, 325, 119895.	5.1	13
770	Priorities for Policy Design. RSC Energy and Environment Series, 2022, , 430-464.	0.2	1
771	Carbon Pricing and the Elasticity of Co2 Emissions. SSRN Electronic Journal, 0, , .	0.4	0
772	Designing optimal coreâ€“shell MOFs for direct air capture. Nanoscale, 2022, 14, 16085-16096.	2.8	10
773	Below zero. Environmental Science Advances, 2022, 1, 612-619.	1.0	4
774	Political and Socio-economic Challenges of Greenhouse Gas Removal Technologies. RSC Energy and Environment Series, 2022, , 390-429.	0.2	0
775	Geochemical Negative Emission Technologies. RSC Energy and Environment Series, 2022, , 138-193.	0.2	0
776	Comparison of Technologies and Practices for Removing Carbon Dioxide from the Atmosphere. RSC Energy and Environment Series, 2022, , 351-377.	0.2	1
777	Bioenergy with Carbon Capture and Storage (BECCS). RSC Energy and Environment Series, 2022, , 80-114.	0.2	1

#	Article	IF	Citations
778	Chapter 3. Negative Emissions: The Role and Response of the Climate System. RSC Energy and Environment Series, 2022, , 27-56.	0.2	1
779	Fractional Condensation and Aging of Pyrolysis Oil from Cotton Stalk. SSRN Electronic Journal, 0, , .	0.4	0
780	More carbon per drop to enhance soil carbon sequestration in water-limited environments. Carbon Management, 2022, 13, 450-462.	1.2	0
781	Potentials of Direct Air Capture and Storage in a Greenhouse Gas-Neutral European Energy System. SSRN Electronic Journal, 0, , .	0.4	0
782	Land use change and carbon emissions of a transformation to timber cities. Nature Communications, 2022, 13, .	5.8	74
783	Advocating afforestation, betting on BECCS: land-based negative emissions technologies (NETs) and agrarian livelihoods in the global South. Journal of Peasant Studies, 2023, 50, 185-214.	3.0	6
784	Negative erosion and negative emissions: Combining multiple land-based carbon dioxide removal techniques to rebuild fertile topsoils and enhance food production. Frontiers in Climate, 0, 4, .	1.3	7
785	The biogeophysical effects of idealized land cover and land management changes in Earth system models. Earth System Dynamics, 2022, 13, 1305-1350.	2.7	7
786	Up in the air: the challenge of conceptualizing and crafting a post-carbon planetary politics to confront climate change. Journal of Peasant Studies, 0, , 1-18.	3.0	0
787	Using remote sensing to quantify the additional climate benefits of California forest carbon offset projects. Global Change Biology, 2022, 28, 6789-6806.	4.2	12
788	Prosets: a new financing instrument to deliver a durable net zero transition. Climatic Change, 2022, 174, .	1.7	1
789	Photocatalytic CO2 Conversion Using Anodic TiO2 Nanotube-CuxO Composites. Catalysts, 2022, 12, 1011.	1.6	7
790	Coordinating the Deployment of Bioenergy with Carbon Capture and Storage. , 2022, 77, 19.		1
791	Using ecosystem integrity to maximize climate mitigation and minimize risk in international forest policy. Frontiers in Forests and Global Change, 0, 5, .	1.0	7
792	<scp>BLOEM</scp> : A Spatially Explicit Model of Bioenergy and Carbon Capture and Storage, Applied to Brazil. GCB Bioenergy, 0, , .	2.5	3
793	Development of Power-to-X Catalytic Processes for CO2 Valorisation: From the Molecular Level to the Reactor Architecture. Chemistry, 2022, 4, 1250-1280.	0.9	3
794	Renewable Energy and Energy Reductions or Solar Geoengineering for Climate Change Mitigation?. Energies, 2022, 15, 7315.	1.6	14
796	Protected areas provide thermal buffer against climate change. Science Advances, 2022, 8, .	4.7	17

#	Article	IF	Citations
797	Unlocking CO2 infrastructure deployment: The impact of carbon removal accounting. Energy Policy, 2022, 171, 113265.	4.2	1
798	Macro-level economic and environmental sustainability of negative emission technologies; Case study of crushed silicate production for enhanced weathering. Ecological Economics, 2023, 204, 107636.	2.9	1
799	Carbon sequestration via shellfish farming: A potential negative emissions technology. Renewable and Sustainable Energy Reviews, 2023, 171, 113018.	8.2	8
800	A review of tourism and climate change mitigation: The scales, scopes, stakeholders and strategies of carbon management. Tourism Management, 2023, 95, 104681.	5.8	37
801	Terrestrial carbon sequestration under future climate, nutrient and land use change and management scenarios: a national-scale UK case study. Environmental Research Letters, 2022, 17, 114054.	2.2	3
802	Ionic Liquid Mixtures for Direct Air Capture: High CO₂ Permeation Driven by Superior CO₂ Absorption with Lower Absolute Enthalpy. ACS Omega, 2022, 7, 42155-42162.	1.6	2
803	Bibliometrics of the nexus between food security and carbon emissions: hotspots and trends. Environmental Science and Pollution Research, 2023, 30, 25981-25998.	2.7	15
804	Multi-period optimization for CO2 sequestration potential of enhanced weathering using non-hazardous industrial wastes. Resources, Conservation and Recycling, 2023, 189, 106766.	5.3	4
805	Research Progress and Hotspot Analysis of Carbon Capture, Utilization, and Storage (CCUS): A Visual Analysis Using CiteSpace. Advances in Science, Technology and Innovation, 2022, , 15-28.	0.2	0
806	Expert perceptions of game-changing innovations towards net zero. Energy Strategy Reviews, 2023, 45, 101022.	3.3	12
807	Potentials of direct air capture and storage in a greenhouse gas-neutral European energy system. Energy Strategy Reviews, 2023, 45, 101012.	3.3	4
808	Distributing less, redistributing more: Safe and just low-energy futures in the United Kingdom. Energy Research and Social Science, 2023, 95, 102915.	3.0	3
809	The chicken and egg dilemma for Malaysian sustainable development plan against the economic development in meeting SDG 13 goal. AIP Conference Proceedings, 2022, , .	0.3	0
810	Human Rights and Large-Scale Carbon Dioxide Removal: Potential Limits to BECCS and DACCS Deployment. Land, 2022, 11, 2153.	1.2	10
811	Climate change mitigation and SDGs: modelling the regional potential of promising mitigation measures and assessing their impact on other SDGs. Journal of Integrative Environmental Sciences, 2022, 19, 289-314.	1.0	1
812	Emit now, mitigate later? Earth system reversibility under overshoots of different magnitudes and durations. Earth System Dynamics, 2022, 13, 1641-1665.	2.7	7
813	VARIAÃ‡ÃƒO ESPACIAL DOS ATRIBUTOS FÃSICOS E ESTOQUES DE CARBONO DO SOLO EM PLANTIO DE Schizolobium amazonicum NA AMAZÃ”NIA. Nativa, 2022, 10, 566-576.	0.2	0
814	Much of zero emissions commitment occurs before reaching net zero emissions. Environmental Research Letters, 0, , .	2.2	4

#	Article	IF	Citations
815	Sustainable scale-up of negative emissions technologies and practices: where to focus. Environmental Research Letters, 2023, 18, 023001.	2.2	7
816	Long-term national climate strategies bet on forests and soils to reach net-zero. Communications Earth & Environment, 2022, 3, .	2.6	15
817	Threat management priorities for conserving Antarctic biodiversity. PLoS Biology, 2022, 20, e3001921.	2.6	9
818	Economic and biophysical limits to seaweed farming for climate change mitigation. Nature Plants, 2023, 9, 45-57.	4.7	23
819	Fresh insights for sustainable development: Collaborative governance of carbon emissions based on social network analysis. Sustainable Development, 2023, 31, 1873-1887.	6.9	3
820	Ecosystem carbon budgeting under Swietenia macrophylla King plantation in sub humid foothills of Eastern Himalayans of India. Environment, Development and Sustainability, 2024, 26, 4661-4677.	2.7	2
821	Decarbonization. SpringerBriefs in Applied Sciences and Technology, 2023, , 15-101.	0.2	0
822	An improved multi-period algebraic targeting approach to low carbon energy planning. Energy, 2023, 268, 126627.	4.5	5
823	Subsistence Emissions and Climate Justice. British Journal of Political Science, 2023, 53, 919-933.	2.2	4
824	Quantifying global carbon dioxide removal deployment. Environmental Research Letters, 2023, 18, 024022.	2.2	12
825	Carbon Dioxide Removal in SDGs and Nationally Determined Contributions. , 2023, , 1-20.		0
826	Is carbon removal delaying emission reductions?. Wiley Interdisciplinary Reviews: Climate Change, 2023, 14, .	3.6	29
827	Trends and variability in the ocean carbon sink. Nature Reviews Earth & Environment, 2023, 4, 119-134.	12.2	37
828	Overcoming the Entropy Penalty of Direct Air Capture for Efficient Gigatonne Removal of Carbon Dioxide. ACS Engineering Au, 2023, 3, 114-127.	2.3	6
829	NMR Study of CO₂ Capture by Butylamine and Oligopeptide KDDE in Aqueous Solution: Capture Efficiency and Gibbs Free Energy of the Capture Reaction as a Function of pH**. ChemPhysChem, 2023, 24, .	1.0	2
830	Ultrahigh-performance solid-solid phase change material for efficient, high-temperature thermal energy storage. Acta Materialia, 2023, 249, 118852.	3.8	7
831	Quantifying blue carbon stocks and the role of protected areas to conserve coastal wetlands. Science of the Total Environment, 2023, 874, 162518.	3.9	1
832	Probabilistic feasibility assessment of sequestration reliance for climate targets. Energy, 2023, 272, 127160.	4.5	2

#	Article	IF	Citations
833	Accelerating carbon neutrality could help China's energy system align with below 1.5ÂÂ°C. Journal of Environmental Management, 2023, 337, 117753.	3.8	13
834	A multi-period model for optimizing negative emission technology portfolios with economic and carbon value discount rates. Energy, 2023, 275, 127445.	4.5	5
835	Net zero and the unexplored politics of residual emissions. Energy Research and Social Science, 2023, 98, 103035.	3.0	14
836	THE ROLE OF SYNTHETIC FUELS IN THE GLOBAL NET-ZERO EMISSIONS SCENARIOS. Journal of Japan Society of Civil Engineers Ser G (Environmental Research), 2022, 78, I_451-I_461.	0.1	0
837	Temperature Changes Induced by Biogeochemical and Biophysical Effects of Bioenergy Crop Cultivation. Environmental Science & Technology, 2023, 57, 2474-2483.	4.6	6
838	Afforesting arid land with renewable electricity and desalination to mitigate climate change. Nature Sustainability, 2023, 6, 526-538.	11.5	11
839	Reducing global inequality to secure human wellbeing and climate safety: a modelling study. Lancet Planetary Health, The, 2023, 7, e147-e154.	5.1	14
840	Integrated biochar solutions can achieve carbon-neutral staple crop production. Nature Food, 2023, 4, 236-246.	6.2	42
841	Carbon dioxide removalâ€"Whatâ€™s worth doing? A biophysical and public need perspective. , 2023, 2, e0000124.		4
842	Emerging trends in direct air capture of CO₂: a review of technology options targeting net-zero emissions. RSC Advances, 2023, 13, 5687-5722.	1.7	14
843	Potential of land-based climate change mitigation strategies on abandoned cropland. Communications Earth & Environment, 2023, 4, .	2.6	12
844	Assessment of road transportation measures for global net-zero emissions considering comprehensive energy systems. IATSS Research, 2023, 47, 196-203.	1.8	5
845	Estimation of Property Value Changes from Nearby Carbon Capture, Utilization, and Storage Projects in the United States. SSRN Electronic Journal, 0, , .	0.4	1
846	Diverse carbon dioxide removal approaches could reduce impacts on the energyâ€"waterâ€"land system. Nature Climate Change, 2023, 13, 341-350.	8.1	25
847	Electrolytic Sulfuric Acid Production with Carbon Mineralization for Permanent Carbon Dioxide Removal. ACS Sustainable Chemistry and Engineering, 2023, 11, 4800-4812.	3.2	5
848	Carbon dioxide separation and capture by adsorption: a review. Environmental Chemistry Letters, 2023, 21, 2041-2084.	8.3	21
849	The deployment length of solar radiation modification: an interplay of mitigation, net-negative emissions and climate uncertainty. Earth System Dynamics, 2023, 14, 367-381.	2.7	3
850	Assessing capacity to deploy direct air capture technology at the country level â€" an expert and information entropy comparative analysis. Environmental Research Communications, 2023, 5, 045003.	0.9	1

#	Article	IF	Citations
851	Soil and Ocean Carbon Sequestration, Carbon Capture, Utilization, and Storage as Negative Emission Strategies for Global Climate Change. Journal of Soil Science and Plant Nutrition, 2023, 23, 1421-1437.	1.7	3
852	Chemistry of Soil Organic Matter. , 2024, , 105-167.		1
853	Modeling the energy mix and economic costs of deep decarbonization scenarios in a CGE framework. Energy and Climate Change, 2023, 4, 100106.	2.2	2
854	Trade-off between critical metal requirement and transportation decarbonization in automotive electrification. Nature Communications, 2023, 14, .	5.8	19
855	The prospect of direct air capture for energy security and climate stability. Frontiers in Chemical Engineering, 0, 5, .	1.3	0
856	German citizensâ€™ preference for domestic carbon dioxide removal by afforestation is incompatible with national removal potential. Communications Earth & Environment, 2023, 4, .	2.6	6
857	Sustainable agriculture for food and nutritional security. , 2023, , 25-90.		3
858	Mitigating trade-offs between global food access and net-zero emissions: the potential contribution of direct air carbon capture and storage. Climatic Change, 2023, 176, .	1.7	3
886	Efficient food systems for greater sustainability. Nature Food, 2023, 4, 541-542.	6.2	1
891	Ethics, risks, and governance of NETs. , 2023, , 41-66.		0
900	Carbon Dioxide Removal in SDGs and Nationally Determined Contributions. , 2023, , 425-444.		0
901	Direct ocean capture: the emergence of electrochemical processes for oceanic carbon removal. Energy and Environmental Science, 2023, 16, 4944-4967.	15.6	6
907	Bioenergy with carbon capture and storage. , 2023, , 249-273.		0
909	Kapitel 23. Synthese: Pfade zur Transformation struktureller Bedingungen fÃ¼r ein klimafreundliches Leben. , 2023, , 613-647.		0
935	Bioenergy Crops in the Perspective of Climate Change. , 2023, , 1-27.		0
939	The impact of carbon dioxide removal on temperature parameters over West Africa. Meteorology and Atmospheric Physics, 2023, 135, .	0.9	0