Steven J Davis

List of Publications by Year
in descending order

124 papers	23,360 citations	20036 63 h-index	17891 125 g-index
141 all docs	141 docs citations	141 times ranked	24391 citing authors

#	Article	IF	Citations
1	Near-real-time global gridded daily CO2 emissions. Innovation(China), 2022, 3, 100182.	5.2	24
2	Integration of energy systems. MRS Bulletin, 2022, , 1-14.	1.7	2
3	Impact of Lockdowns and Winter Temperatures on Natural Gas Consumption in Europe. Earth's Future, 2022, 10, .	2.4	10
4	Role of climate goals and clean-air policies on reducing future air pollution deaths in China: a modelling study. Lancet Planetary Health, The, 2022, 6, e92-e99.	5.1	44
5	Emissions rebound from the COVID-19 pandemic. Nature Climate Change, 2022, 12, 412-414.	8.1	41
6	Global fossil carbon emissions rebound near pre-COVID-19 levels. Environmental Research Letters, 2022, 17, 031001.	2.2	42
7	Cement and steel â€” nine steps to net zero. Nature, 2022, 603, 574-577.	13.7	70
8	Monitoring global carbon emissions in 2021. Nature Reviews Earth & Environment, 2022, 3, 217-219.	12.2	215
9	Land-use emissions embodied in international trade. Science, 2022, 376, 597-603.	6.0	61
10	Global patterns of daily CO2 emissions reductions in the first year of COVID-19. Nature Geoscience, 2022, 15, 615-620.	5.4	46
11	Enhanced secondary pollution offset reduction of primary emissions during COVID-19 lockdown in China. National Science Review, 2021, 8, nwaa137.	4.6	493
12	Economic footprint of California wildfires in 2018. Nature Sustainability, 2021, 4, 252-260.	11.5	131
13	The adaptive benefits of agricultural water markets in California. Environmental Research Letters, 2021, 16, 044036.	2.2	9
14	Fossil CO2 emissions in the post-COVID-19 era. Nature Climate Change, 2021, 11, 197-199.	8.1	171
15	Global CO₂ uptake by cement from 1930 to 2019. Earth System Science Data, 2021, 13, 1791-1805.	3.7	35
16	Pathways of China's PM2.5 air quality 2015â€“2060 in the context of carbon neutrality. National Science Review, 2021, 8, nwab078.	4.6	142
17	Decarbonizing cement production. Joule, 2021, 5, 1305-1311.	11.7	85
18	Drivers and projections of global surface temperature anomalies at the local scale. Environmental Research Letters, 2021, 16, 064093.	2.2	13

#	Article	IF	Citations
19	Effect of strengthened standards on Chinese ironmaking and steelmaking emissions. Nature Sustainability, 2021, 4, 811-820.	11.5	53
20	A review of trends and drivers of greenhouse gas emissions by sector from 1990 to 2018. Environmental Research Letters, 2021, 16, 073005.	2.2	421
21	Drivers of PM2.5 air pollution deaths in China 2002â€"2017. Nature Geoscience, 2021, 14, 645-650.	5.4	197
22	Atmospheric methane removal: a research agenda. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200454.	1.6	44
23	Environmental benefit-detriment thresholds for flow battery energy storage systems: A case study in California. Applied Energy, 2021, 300, 117354.	5.1	10
24	Net-zero emissions energy systems: What we know and do not know. Energy and Climate Change, 2021, 2, 100049.	2.2	38
25	Global and regional drivers of land-use emissions in 1961â€"2017. Nature, 2021, 589, 554-561.	13.7	256
26	Energy systems in scenarios at net-zero CO2 emissions. Nature Communications, 2021, 12, 6096.	5.8	91
27	Geophysical constraints on the reliability of solar and wind power worldwide. Nature Communications, 2021, 12, 6146.	5.8	90
28	Regional impacts of COVID-19 on carbon dioxide detected worldwide from space. Science Advances, 2021, 7, eabf9415.	4.7	33
29	Introduction to the special issue on Net-Zero Energy Systems. Energy and Climate Change, 2021, 2, 100066.	2.2	9
30	Health co-benefits of climate change mitigation depend on strategic power plant retirements and pollution controls. Nature Climate Change, 2021, 11, 1077-1083.	8.1	49
31	Committed Emissions of the U.S. Power Sector, 2000â€"2018. AGU Advances, 2020, 1, e2020AV000162.	2.3	8
32	Near-real-time monitoring of global CO2 emissions reveals the effects of the COVID-19 pandemic. Nature Communications, 2020, 11, 5172.	5.8	420
33	Would firm generators facilitate or deter variable renewable energy in a carbon-free electricity system?. Applied Energy, 2020, 279, 115789.	5.1	12
34	Satellite-based estimates of decline and rebound in Chinaâ€™s CO ₂ emissions during COVID-19 pandemic. Science Advances, 2020, 6, .	4.7	136
35	Effects of Deep Reductions in Energy Storage Costs on Highly Reliable Wind and Solar Electricity Systems. IScience, 2020, 23, 101484.	1.9	36
36	Carbon Monitor, a near-real-time daily dataset of global CO2 emission from fossil fuel and cement production. Scientific Data, 2020, 7, 392.	2.4	115

#	Article	IF	Citations
37	Role of Long-Duration Energy Storage in Variable Renewable Electricity Systems. Joule, 2020, 4, 1907-1928.	11.7	238
38	The COVID-19 lockdowns: a window into the Earth System. Nature Reviews Earth & Environment, 2020, 1, 470-481.	12.2	153
39	Weakening aerosol direct radiative effects mitigate climate penalty on Chinese air quality. Nature Climate Change, 2020, 10, 845-850.	8.1	32
40	Local Anomalies in the Columnâ€Averaged Dry Air Mole Fractions of Carbon Dioxide Across the Globe During the First Months of the Coronavirus Recession. Geophysical Research Letters, 2020, 47, e2020GL090244.	1.5	31
41	Optimizing Emissions Reductions from the U.S. Power Sector for Climate and Health Benefits. Environmental Science & Technology, 2020, 54, 7513-7523.	4.6	31
42	Global supply-chain effects of COVID-19 control measures. Nature Human Behaviour, 2020, 4, 577-587.	6.2	521
43	Early retirement of power plants in climate mitigation scenarios. Environmental Research Letters, 2020, 15, 094064.	2.2	38
44	Impacts of ozone and climate change on yields of perennial crops in California. Nature Food, 2020, 1, 166-172.	6.2	59
45	Climate adaptation by crop migration. Nature Communications, 2020, 11, 1243.	5.8	153
46	Climate effects of aerosols reduce economic inequality. Nature Climate Change, 2020, 10, 220-224.	8.1	15
47	Agricultural risks from changing snowmelt. Nature Climate Change, 2020, 10, 459-465.	8.1	187
48	Data and analysis toolbox for modeling the nexus of food, energy, and water. Sustainable Cities and Society, 2020, 61, 102281.	5.1	19
49	Climate effects of Chinaâ€™s efforts to improve its air quality. Environmental Research Letters, 2020, 15, 104052.	2.2	16
50	Regional and county flows of particulate matter damage in the US. Environmental Research Letters, 2020, 15, 104073.	2.2	11
51	Trends and drivers of African fossil fuel CO₂ emissions 1990â€“2017. Environmental Research Letters, 2020, 15, 124039.	2.2	54
52	Committed emissions from existing energy infrastructure jeopardize 1.5â€‰Â°C climate target. Nature, 2019, 572, 373-377.	13.7	484
53	Impacts of climate change on future air quality and human health in China. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17193-17200.	3.3	219
54	Inequality of household consumption and air pollution-related deaths in China. Nature Communications, 2019, 10, 4337.	5.8	114

#	ARTICLE	IF	CITATIONS
55	Public lands fly under climate radar. Nature Climate Change, 2019, 9, 92-93.	8.1	2
56	Flexibility and intensity of global water use. Nature Sustainability, 2019, 2, 515-523.	11.5	106
57	Global urban expansion offsets climate-driven increases in terrestrial net primary productivity. Nature Communications, 2019, 10, 5558.	5.8	198
58	Economic carbon cycle feedbacks may offset additional warming from natural feedbacks. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 759-764.	3.3	56
59	Geophysical constraints on the reliability of solar and wind power in the United States. Energy and Environmental Science, 2018, 11, 914-925.	15.6	211
60	Turning Paris into reality at the University of California. Nature Climate Change, 2018, 8, 183-185.	8.1	12
61	Infrastructure Shapes Differences in the Carbon Intensities of Chinese Cities. Environmental Science & Technology, 2018, 52, 6032-6041.	4.6	30
62	Land-use change emissions from soybean feed embodied in Brazilian pork and poultry meat. Journal of Cleaner Production, 2018, 172, 2646-2654.	4.6	33
63	Targeted emission reductions from global super-polluting power plant units. Nature Sustainability, 2018, 1, 59-68.	11.5	215
64	Predicting unpredictability. Nature Energy, 2018, 3, 257-258.	19.8	5
65	Decreases in global beer supply due to extreme drought and heat. Nature Plants, 2018, 4, 964-973.	4.7	153
66	Without a back-up plan. Nature Sustainability, 2018, 1, 538-539.	11.5	0
67	Climatic Responses to Future Transâ€Arctic Shipping. Geophysical Research Letters, 2018, 45, 9898-9908.	1.5	34
68	The rise of Southâ€"South trade and its effect on global CO2 emissions. Nature Communications, 2018, 9, 1871.	5.8	328
69	Structural decline in Chinaâ€™s CO2 emissions through transitions in industry and energy systems. Nature Geoscience, 2018, 11, 551-555.	5.4	340
70	City-level climate change mitigation in China. Science Advances, 2018, 4, eaaq0390.	4.7	287
71	Net-zero emissions energy systems. Science, 2018, 360, .	6.0	1,165
72	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
73	Evaluation of a proposal for reliable low-cost grid power with 100% wind, water, and solar. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6722-6727.	3.3	250
74	Increasing probability of mortality during Indian heat waves. Science Advances, 2017, 3, e1700066.	4.7	247
75	Transboundary health impacts of transported global air pollution and international trade. Nature, 2017, 543, 705-709.	13.7	737
76	Greenhouse Gas Emissions Due to Meat Production in the Last Fifty Years. , 2017, , 27-37.		7
77	Probabilistic estimates of drought impacts on agricultural production. Geophysical Research Letters, 2017, 44, 7799-7807.	1.5	154
78	Effects of atmospheric transport and trade on air pollution mortality in China. Atmospheric Chemistry and Physics, 2017, 17, 10367-10381.	1.9	64
79	Chapter 1. Bending the Curve: Ten Scalable Solutions for Carbon Neutrality and Climate Stability. Collabra, 2016, 2, .	1.3	17
80	Dislocated interests and climate change. Environmental Research Letters, 2016, 11, 061001.	2.2	10
81	Simulating the Earth system response to negative emissions. Environmental Research Letters, 2016, 11, 095012.	2.2	98
82	Global climate forcing of aerosols embodied in international trade. Nature Geoscience, 2016, 9, 790-794.	5.4	79
83	Quantifying expert consensus against the existence of a secret, large-scale atmospheric spraying program. Environmental Research Letters, 2016, 11, 084011.	2.2	16
84	Substantial global carbon uptake by cement carbonation. Nature Geoscience, 2016, 9, 880-883.	5.4	355
85	Carbon Lock-In: Types, Causes, and Policy Implications. Annual Review of Environment and Resources, 2016, 41, 425-452.	5.6	632
86	Correspondence: Reply to â€˜Reassessing the contribution of natural gas to US CO2 emission reductions since 2007â€™. Nature Communications, 2016, 7, 10693.	5.8	11
87	Biophysical and economic limits to negative CO2 emissions. Nature Climate Change, 2016, 6, 42-50.	8.1	973
88	Targeted opportunities to address the climateâ€“trade dilemma in China. Nature Climate Change, 2016, 6, 201-206.	8.1	206
89	Chapter 3. Science and Pathways for Bending the Curve. Collabra, 2016, 2, .	1.3	0
90	Assessment of China's virtual air pollution transport embodied in trade by using a consumption-based emission inventory. Atmospheric Chemistry and Physics, 2015, 15, 5443-5456.	1.9	137

#	Article	IF	Citations
91	Corrigendum to "Assessment of China's virtual air pollution transport embodied in trade by using a consumption-based emission inventory" published in Atmos. Chem. Phys., 15, 5443â€“5456, 2015. Atmospheric Chemistry and Physics, 2015, 15, 6815-6815.	1.9	11
92	Relevance of methodological choices for accounting of land use change carbon fluxes. Global Biogeochemical Cycles, 2015, 29, 1230-1246.	1.9	156
93	Climate constraints on the carbon intensity of economic growth. Environmental Research Letters, 2015, 10, 095006.	2.2	36
94	Rate and velocity of climate change caused by cumulative carbon emissions. Environmental Research Letters, 2015, 10, 095001.	2.2	19
95	Costâ€effective ecological restoration. Restoration Ecology, 2015, 23, 800-810.	1.4	123
96	Systems integration for global sustainability. Science, 2015, 347, 1258832.	6.0	820
97	Drivers of the US CO2 emissions 1997â€“2013. Nature Communications, 2015, 6, 7714.	5.8	296
98	Developing country finance in a post-2020 global climate agreement. Nature Climate Change, 2015, 5, 983-987.	8.1	28
99	Reduced carbon emission estimates from fossil fuel combustion and cement production in China. Nature, 2015, 524, 335-338.	13.7	1,185
100	Methods for attributing land-use emissions to products. Carbon Management, 2014, 5, 233-245.	1.2	31
101	The effect of natural gas supply on US renewable energy and CO ₂ emissions. Environmental Research Letters, 2014, 9, 094008.	2.2	73
102	Reply to Lopez et al.: Consumption-based accounting helps mitigate global air pollution. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E2631.	3.3	27
103	CH ₄ and N ₂ O emissions embodied in international trade of meat. Environmental Research Letters, 2014, 9, 114005.	2.2	65
104	Commitment accounting of CO ₂ emissions. Environmental Research Letters, 2014, 9, 084018.	2.2	153
105	Chinaâ€™s international trade and air pollution in the United States. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 1736-1741.	3.3	391
106	A crack in the natural-gas bridge. Nature, 2014, 514, 436-437.	13.7	43
107	Global and regional trends in greenhouse gas emissions from livestock. Climatic Change, 2014, 126, 203-216.	1.7	144
108	Sharing a quota on cumulative carbon emissions. Nature Climate Change, 2014, 4, 873-879.	8.1	295

#	Article	IF	Citations
109	Climate policy and dependence on traded carbon. Environmental Research Letters, 2013, 8, 034011.	2.2	47
110	Outsourcing CO ₂ within China. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11654-11659.	3.3	533
111	Rethinking wedges. Environmental Research Letters, 2013, 8, 011001.	2.2	47
112	The Australian terrestrial carbon budget. Biogeosciences, 2013, 10, 851-869.	1.3	109
113	The Cenozoic climatic and topographic evolution of the western North American Cordillera. Numerische Mathematik, 2012, 312, 213-262.	0.7	143
114	A synthesis of carbon in international trade. Biogeosciences, 2012, 9, 3247-3276.	1.3	247
115	A synthesis of carbon dioxide emissions from fossil-fuel combustion. Biogeosciences, 2012, 9, 1845-1871.	1.3	271
116	The supply chain of CO₂emissions. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 18554-18559.	3.3	388
117	Accounting for carbon dioxide emissions: A matter of time. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8533-8534.	3.3	43
118	The Paleogene California River: Evidence of Mojave-Uinta paleodrainage from U-Pb ages of detrital zircons. Geology, 2010, 38, 931-934.	2.0	53
119	Future CO ₂ Emissions and Climate Change from Existing Energy Infrastructure. Science, 2010, 329, 1330-1333.	6.0	1,025
120	Consumption-based accounting of CO ₂ emissions. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 5687-5692.	3.3	1,385
121	Greenhouse gas mitigation by agricultural intensification. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12052-12057.	3.3	835
122	Synorogenic evolution of large-scale drainage patterns: Isotope paleohydrology of sequential Laramide basins. Numerische Mathematik, 2009, 309, 549-602.	0.7	31
123	The effect of drainage reorganization on paleoaltimetry studies: An example from the Paleogene Laramide foreland. Earth and Planetary Science Letters, 2008, 275, 258-268.	1.8	43
124	Paleogene landscape evolution of the central North American Cordillera: Developing topography and hydrology in the Laramide foreland. Bulletin of the Geological Society of America, 2006, preprint, 1.	1.6	27