Haibo Zhai

List of Publications by Year
in descending order

53 papers	2,301 citations	257101 24 h-index	214527 47 g-index
53 all docs	53 docs citations	53 times ranked	2337 citing authors

#	Article	IF	Citations
1	Membrane-based carbon capture from flue gas: a review. Journal of Cleaner Production, 2015, 103, 286-300.	4.6	288
2	A Vehicle-Specific Power Approach to Speed- and Facility-Specific Emissions Estimates for Diesel Transit Buses. Environmental Science & Technology, 2008, 42, 7985-7991.	4.6	167
3	Comparing real-world fuel consumption for diesel- and hydrogen-fueled transit buses and implication for emissions. Transportation Research, Part D: Transport and Environment, 2007, 12, 281-291.	3.2	139
4	The Cost of Carbon Capture and Storage for Natural Gas Combined Cycle Power Plants. Environmental Science & Technology, 2012, 46, 3076-3084.	4.6	135
5	Performance and cost of wet and dry cooling systems for pulverized coal power plants with and without carbon capture and storage. Energy Policy, 2010, 38, 5653-5660.	4.2	128
6	Water Use at Pulverized Coal Power Plants with Postcombustion Carbon Capture and Storage. Environmental Science & Technology, 2011, 45, 2479-2485.	4.6	123
7	Techno-Economic Assessment of Polymer Membrane Systems for Postcombustion Carbon Capture at Coal-Fired Power Plants. Environmental Science & Technology, 2013, 47, 3006-3014.	4.6	103
8	Managing Chinaâ€™s coal power plants to address multiple environmental objectives. Nature Sustainability, 2018, 1, 693-701.	11.5	98
9	Membrane properties required for post-combustion CO2 capture at coal-fired power plants. Journal of Membrane Science, 2016, 511, 250-264.	4.1	93
10	Assessing methods for comparing emissions from gasoline and diesel light-duty vehicles based on microscale measurements. Transportation Research, Part D: Transport and Environment, 2009, 14, 91-99.	3.2	87
11	Boundary Dam or Petra Nova â€“ Which is a better model for CCS energy supply?. International Journal of Greenhouse Gas Control, 2019, 82, 59-68.	2.3	69
12	Life cycle water use of coal- and natural-gas-fired power plants with and without carbon capture and storage. International Journal of Greenhouse Gas Control, 2016, 44, 249-261.	2.3	66
13	Opportunities for Decarbonizing Existing U.S. Coal-Fired Power Plants via CO₂ Capture, Utilization and Storage. Environmental Science & Technology, 2015, 49, 7571-7579.	4.6	62
14	The cost of carbon capture and storage for coal-fired power plants in China. International Journal of Greenhouse Gas Control, 2017, 65, 23-31.	2.3	60
15	Speed- and Facility-Specific Emission Estimates for On-Road Light-Duty Vehicles on the Basis of Real-World Speed Profiles. Transportation Research Record, 2006, 1987, 128-137.	1.0	49
16	Link-Based Emission Factors for Heavy-Duty Diesel Trucks Based on Real-World Data. Transportation Research Record, 2008, 2058, 23-32.	1.0	46
17	Systems Analysis of Physical Absorption of CO₂ in Ionic Liquids for Pre-Combustion Carbon Capture. Environmental Science & Technology, 2018, 52, 4996-5004.	4.6	42
18	Speed- and Facility-Specific Emission Estimates for On-Road Light-Duty Vehicles on the Basis of Real-World Speed Profiles. , 0, .		40

#	Article	IF	Citations
19	Comparative Performance and Cost Assessments of Coal- and Natural-Gas-Fired Power Plants under a CO₂ Emission Performance Standard Regulation. Energy & Fuels, 2013, 27, 4290-4301.	2.5	39
20	Development of a modal emissions model for a hybrid electric vehicle. Transportation Research, Part D: Transport and Environment, 2011, 16, 444-450.	3.2	37
21	Comparison of Flexible Fuel Vehicle and Life-Cycle Fuel Consumption and Emissions of Selected Pollutants and Greenhouse Gases for Ethanol 85 Versus Gasoline. Journal of the Air and Waste Management Association, 2009, 59, 912-924.	0.9	35
22	Effects of Climate Change on Capacity Expansion Decisions of an Electricity Generation Fleet in the Southeast U.S.. Environmental Science & Technology, 2021, 55, 2522-2531.	4.6	30
23	Advanced Membranes and Learning Scale Required for Cost-Effective Post-combustion Carbon Capture. IScience, 2019, 13, 440-451.	1.9	29
24	Systems Analysis of Ionic Liquids for Post-combustion CO2 Capture at Coal-fired Power Plants. Energy Procedia, 2014, 63, 1321-1328.	1.8	28
25	Consumptive Water Use from Electricity Generation in the Southwest under Alternative Climate, Technology, and Policy Futures. Environmental Science & Technology, 2016, 50, 12095-12104.	4.6	26
26	Water Impacts of CO₂ Emission Performance Standards for Fossil Fuel-fired Power Plants. Environmental Science & Technology, 2014, 48, 11769-11776.	4.6	22
27	Marginal costs of water savings from cooling system retrofits: a case study for Texas power plants. Environmental Research Letters, 2016, 11, 104004.	2.2	21
28	The Economic Merits of Flexible Carbon Capture and Sequestration as a Compliance Strategy with the Clean Power Plan. Environmental Science & Technology, 2017, 51, 1102-1109.	4.6	21
29	Regional On-Road Vehicle Running Emissions Modeling and Evaluation for Conventional and Alternative Vehicle Technologies. Environmental Science & Technology, 2009, 43, 8449-8455.	4.6	20
30	A Techno-Economic Assessment of Hybrid Cooling Systems for Coal- and Natural-Gas-Fired Power Plants with and without Carbon Capture and Storage. Environmental Science & Technology, 2016, 50, 4127-4134.	4.6	20
31	Trade-offs in cost and emission reductions between flexible and normal carbon capture and sequestration under carbon dioxide emission constraints. International Journal of Greenhouse Gas Control, 2017, 66, 25-34.	2.3	16
32	Transitioning to a carbon-constrained world: Reductions in coal-fired power plant emissions through unit-specific, least-cost mitigation frontiers. Applied Energy, 2021, 288, 116599.	5.1	16
33	Carbon capture effects on water use at pulverized coal power plants. Energy Procedia, 2011, 4, 2238-2244.	1.8	14
34	A techno-economic assessment of carbon-sequestration tax incentives in the U.S. power sector. International Journal of Greenhouse Gas Control, 2021, 111, 103450.	2.3	14
35	Consumptive life cycle water use of biomass-to-power plants with carbon capture and sequestration. Applied Energy, 2021, 303, 117702.	5.1	13
36	The Effects of Membrane-based CO2 Capture System on Pulverized Coal Power Plant Performance and Cost. Energy Procedia, 2013, 37, 1117-1124.	1.8	11

#	ARTICLE	IF	CITATIONS
37	Viability of Carbon Capture and Sequestration Retrofits for Existing Coal-Fired Power Plants under an Emission Trading Scheme. Environmental Science & Technology, 2016, 50, 12567-12574.	4.6	10
38	Technical and Economic Assessments of Ionic Liquids for Pre-Combustion CO2 Capture at IGCC Power Plants. Energy Procedia, 2017, 114, 2166-2172.	1.8	10
39	Assessing carbon pollution standards: Electric power generation pathways and their water impacts. Energy Policy, 2018, 120, 714-733.	4.2	10
40	Water Impacts of a Low-Carbon Electric Power Future: Assessment Methodology and Status. Current Sustainable/Renewable Energy Reports, 2015, 2, 1-9.	1.2	9
41	Policy-Driven Potential for Deploying Carbon Capture and Sequestration in a Fossil-Rich Power Sector. Environmental Science & Technology, 2022, 56, 9872-9881.	4.6	9
42	Dry cooling retrofits at existing fossil fuel-fired power plants in a water-stressed region: Tradeoffs in water savings, cost, and capacity shortfalls. Applied Energy, 2022, 306, 117997.	5.1	7
43	Fossil fuelâ€“fired power plant operations under a changing climate. Climatic Change, 2020, 163, 619-632.	1.7	6
44	Reducing carbon dioxide emissions beyond 2030: Time to shift U.S. power-sector focus. Energy Policy, 2021, 148, 111778.	4.2	6
45	Many Hands Make Light Work: Widening the U.S. Path Forward from COP26. Environmental Science & Technology, 2022, 56, 10-12.	4.6	6
46	Climate-Induced Tradeoffs in Planning and Operating Costs of a Regional Electricity System. Environmental Science & Technology, 2021, 55, 11204-11215.	4.6	5
47	Microwave-accelerated regeneration of a non-aqueous slurry for energy-efficient carbon sequestration. Materials Today Sustainability, 2022, 19, 100168.	1.9	5
48	Deep Reductions of Committed Emissions from Existing Power Infrastructure: Potential Paths in the United States and China. Environmental Science & Technology, 2019, 53, 14097-14098.	4.6	4
49	Will We Always Have Paris? CO2 Reduction without the Clean Power Plan. Environmental Science & Technology, 2018, 52, 2432-2433.	4.6	2
50	Future U.S. Energy Policy: Two Paths Diverge in a Woodâ€”Does It Matter Which Is Taken?. Environmental Science & Technology, 2020, 54, 12807-12809.	4.6	2
51	It is Time to Invest in 99% CO₂ Capture. Environmental Science & Technology, 2022, 56, 9829-9831.	4.6	2
52	On the Road to Paris: The Shifting Landscape of CO2 Reduction. Environmental Science & Technology, 2019, 53, 12156-12157.	4.6	1
53	Impact of Alternative Vehicle Technologies on Measured Vehicle Emissions. , 2008, , .		0