Shaojun Zhang

List of Publications by Year
in descending order

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123 papers	7,670 citations	41323 49 h-index	58549 82 g-index
128 all docs	128 docs citations	128 times ranked	6210 citing authors

#	Article	IF	Citations
1	Variability of fuel consumption and CO2 emissions of a gasoline passenger car under multiple in-laboratory and on-road testing conditions. Journal of Environmental Sciences, 2023, 125, 266-276.	3.2	16
2	Advances in emission control of diesel vehicles in China. Journal of Environmental Sciences, 2023, 123, 15-29.	3.2	30
3	Real-Time Black Carbon Emissions from Light-Duty Passenger Vehicles Using a Portable Emissions Measurement System. Engineering, 2022, 16, 73-81.	3.2	12
4	Uncertainty investigation of plume-chasing method for measuring on-road NOx emission factors of heavy-duty diesel vehicles. Journal of Hazardous Materials, 2022, 424, 127372.	6.5	5
5	A data-driven method of traffic emissions mapping with land use random forest models. Applied Energy, 2022, 305, 117916.	5.1	37
6	Evaluation of a cost-effective roadside sensor platform for identifying high emitters. Science of the Total Environment, 2022, 816, 151609.	3.9	5
7	Emission mitigation potential from coordinated charging schemes for future private electric vehicles. Applied Energy, 2022, 308, 118385.	5.1	13
8	High-resolution mapping of regional traffic emissions using land-use machine learning models. Atmospheric Chemistry and Physics, 2022, 22, 1939-1950.	1.9	12
9	Ambient sampling of real-world residential wood combustion plumes. Journal of the Air and Waste Management Association, 2022, 72, 710-719.	0.9	3
10	Characterizing spatial variations of city-wide elevated PM10 and PM2.5 concentrations using taxi-based mobile monitoring. Science of the Total Environment, 2022, 829, 154478.	3.9	9
11	Developing a High-Resolution Emission Inventory of Chinaâ€™s Aviation Sector Using Real-World Flight Trajectory Data. Environmental Science & Technology, 2022, 56, 5743-5752.	4.6	14
12	Comprehensive characterization of polycyclic aromatic hydrocarbon emissions from heavy-duty diesel vehicles utilizing GC Ã— GC-ToF-MS. Science of the Total Environment, 2022, 833, 155127.	3.9	9
13	Comprehensive chemical characterization of gaseous I/SVOC emissions from heavy-duty diesel vehicles using two-dimensional gas chromatography time-of-flight mass spectrometry. Environmental Pollution, 2022, 305, 119284.	3.7	13
14	Urbanâ€“Rural Disparities in Air Quality Responses to Traffic Changes in a Megacity of China Revealed Using Machine Learning. Environmental Science and Technology Letters, 2022, 9, 592-598.	3.9	7
15	Species profiles, in-situ photochemistry and health risk of volatile organic compounds in the gasoline service station in China. Science of the Total Environment, 2022, 842, 156813.	3.9	7
16	Variability of NO₂/NO_x Ratios in Multiple Microenvironments from On-Road and Near-Roadway Measurements. ACS ES&T Engineering, 2022, 2, 1599-1610.	3.7	7
17	Characterizing start emissions of gasoline vehicles and the seasonal, diurnal and spatial variabilities in China. Atmospheric Environment, 2021, 245, 118040.	1.9	26
18	Asia Pacific road transportation emissions, 1900â€“2050. Faraday Discussions, 2021, 226, 53-73.	1.6	5

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19	Switching on auxiliary devices in vehicular fuel efficiency tests can help cut CO2 emissions by millions of tons. One Earth, 2021, 4, 135-145.	3.6	10
20	Mitigation potential of black carbon emissions from on-road vehicles in China. Environmental Pollution, 2021, 278, 116746.	3.7	20
21	From COVID-19 to future electrification: Assessing traffic impacts on air quality by a machine-learning model. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	50
22	Health Benefits and Costs of Clean Heating Renovation: An Integrated Assessment in a Major Chinese City. Environmental Science & Technology, 2021, 55, 10046-10055.	4.6	22
23	Impacts of vegetation on particle concentrations in roadside environments. Environmental Pollution, 2021, 282, 117067.	3.7	30
24	Air quality improvement via modal shift: Assessment of rail-water-port integrated system planning in Shenzhen, China. Science of the Total Environment, 2021, 791, 148158.	3.9	16
25	The new CORSIA baseline has limited motivation to promote the green recovery of global aviation. Environmental Pollution, 2021, 289, 117833.	3.7	8
26	Combined solar power and storage as cost-competitive and grid-compatible supply for Chinaâ€™s future carbon-neutral electricity system. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	70
27	Cradle-to-gate greenhouse gas (GHG) burdens for aluminum and steel production and cradle-to-grave GHG benefits of vehicle lightweighting in China. Resources, Conservation and Recycling, 2020, 152, 104497.	5.3	30
28	Potential emission reductions by converting agricultural residue biomass to synthetic fuels for vehicles and domestic cooking in China. Particuology, 2020, 49, 40-47.	2.0	7
29	Mapping dynamic road emissions for a megacity by using open-access traffic congestion index data. Applied Energy, 2020, 260, 114357.	5.1	58
30	Well-to-wheels greenhouse gas and air pollutant emissions from battery electric vehicles in China. Mitigation and Adaptation Strategies for Global Change, 2020, 25, 355-370.	1.0	29
31	Health benefits of on-road transportation pollution control programs in China. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25370-25377.	3.3	57
32	Unprecedented Ambient Sulfur Trioxide (SO₃) Detection: Possible Formation Mechanism and Atmospheric Implications. Environmental Science and Technology Letters, 2020, 7, 809-818.	3.9	34
33	Four-Month Changes in Air Quality during and after the COVID-19 Lockdown in Six Megacities in China. Environmental Science and Technology Letters, 2020, 7, 802-808.	3.9	109
34	Evaluating mobile monitoring of on-road emission factors by comparing concurrent PEMS measurements. Science of the Total Environment, 2020, 736, 139507.	3.9	28
35	On-board monitoring (OBM) for heavy-duty vehicle emissions in China: Regulations, early-stage evaluation and policy recommendations. Science of the Total Environment, 2020, 731, 139045.	3.9	33
36	Air quality and health impacts from using ethanol blended gasoline fuels in China. Atmospheric Environment, 2020, 228, 117396.	1.9	15

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37	Progress of Air Pollution Control in China and Its Challenges and Opportunities in the Ecological Civilization Era. Engineering, 2020, 6, 1423-1431.	3.2	222
38	On-road emission measurements of reactive nitrogen compounds from heavy-duty diesel trucks in China. Environmental Pollution, 2020, 262, 114280.	3.7	88
39	Real-world fuel consumption of light-duty passenger vehicles using on-board diagnostic (OBD) systems. Frontiers of Environmental Science and Engineering, 2020, 14, 1.	3.3	20
40	Size-segregated particle number and mass concentrations from different emission sources in urban Beijing. Atmospheric Chemistry and Physics, 2020, 20, 12721-12740.	1.9	36
41	Economic and Climate Benefits of Electric Vehicles in China, the United States, and Germany. Environmental Science & Technology, 2019, 53, 11013-11022.	4.6	38
42	Assessment of ethanol blended fuels for gasoline vehicles in China: Fuel economy, regulated gaseous pollutants and particulate matter. Environmental Pollution, 2019, 253, 731-740.	3.7	36
43	High-resolution mapping of vehicle emissions of atmospheric pollutants based on large-scale, real-world traffic datasets. Atmospheric Chemistry and Physics, 2019, 19, 8831-8843.	1.9	82
44	Evaluating on-board sensing-based nitrogen oxides (NOX) emissions from a heavy-duty diesel truck in China. Atmospheric Environment, 2019, 216, 116908.	1.9	21
45	Transition in source contributions of PM2.5 exposure and associated premature mortality in China during 2005â€“2015. Environment International, 2019, 132, 105111.	4.8	104
46	On-highway vehicle emission factors, and spatial patterns, based on mobile monitoring and absolute principal component score. Science of the Total Environment, 2019, 676, 242-251.	3.9	24
47	Measurement of size-fractionated particulate-bound mercury in Beijing and implications on sources and dry deposition of mercury. Science of the Total Environment, 2019, 675, 176-183.	3.9	17
48	Change in mercury speciation in seafood after cooking and gastrointestinal digestion. Journal of Hazardous Materials, 2019, 375, 130-137.	6.5	22
49	Real-world driving cycles and energy consumption informed by large-sized vehicle trajectory data. Journal of Cleaner Production, 2019, 223, 564-574.	4.6	54
50	Air quality and health benefits from fleet electrification in China. Nature Sustainability, 2019, 2, 962-971.	11.5	174
51	Real-world gaseous emissions of high-mileage taxi fleets in China. Science of the Total Environment, 2019, 659, 267-274.	3.9	30
52	Black carbon pollution for a major road in Beijing: Implications for policy interventions of the heavy-duty truck fleet. Transportation Research, Part D: Transport and Environment, 2019, 68, 110-121.	3.2	21
53	Measurement of particulate polycyclic aromatic hydrocarbon emissions from gasoline light-duty passenger vehicles. Journal of Cleaner Production, 2018, 185, 797-804.	4.6	22
54	Well-to-wheel GHG emissions and mitigation potential from light-duty vehicles in Macau. International Journal of Life Cycle Assessment, 2018, 23, 1916-1927.	2.2	9

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55	How ethanol and gasoline formula changes evaporative emissions of the vehicles. Applied Energy, 2018, 222, 584-594.	5.1	38
56	On-Road Chemical Transformation as an Important Mechanism of NO₂ Formation. Environmental Science & Technology, 2018, 52, 4574-4582.	4.6	24
57	Evaluating real-world emissions of light-duty gasoline vehicles with deactivated three-way catalyst converters. Atmospheric Pollution Research, 2018, 9, 126-132.	1.8	33
58	Energy consumption and well-to-wheels air pollutant emissions of battery electric buses under complex operating conditions and implications on fleet electrification. Journal of Cleaner Production, 2018, 171, 714-722.	4.6	48
59	Energy-saving benefits from plug-in hybrid electric vehicles: perspectives based on real-world measurements. Mitigation and Adaptation Strategies for Global Change, 2018, 23, 735-756.	1.0	15
60	Could urban electric public bus really reduce the GHG emissions: A case study in Macau?. Journal of Cleaner Production, 2018, 172, 2133-2142.	4.6	43
61	The impact from the direct injection and multi-port fuel injection technologies for gasoline vehicles on solid particle number and black carbon emissions. Applied Energy, 2018, 226, 819-826.	5.1	52
62	Fine-grained vehicle emission management using intelligent transportation system data. Environmental Pollution, 2018, 241, 1027-1037.	3.7	81
63	Assessing the Future Vehicle Fleet Electrification: The Impacts on Regional and Urban Air Quality. Environmental Science & Technology, 2017, 51, 1007-1016.	4.6	71
64	Well-to-wheels energy consumption and emissions of electric vehicles: Mid-term implications from real-world features and air pollution control progress. Applied Energy, 2017, 188, 367-377.	5.1	164
65	Characteristics of black carbon emissions from in-use light-duty passenger vehicles. Environmental Pollution, 2017, 231, 348-356.	3.7	35
66	Characterizing particulate polycyclic aromatic hydrocarbon emissions from diesel vehicles using a portable emissions measurement system. Scientific Reports, 2017, 7, 10058.	1.6	46
67	On-road vehicle emissions and their control in China: A review and outlook. Science of the Total Environment, 2017, 574, 332-349.	3.9	424
68	City-specific vehicle emission control strategies to achieve stringent emission reduction targets in China's Yangtze River Delta region. Journal of Environmental Sciences, 2017, 51, 75-87.	3.2	41
69	Bufei Huoxue Capsule Attenuates PM2.5-Induced Pulmonary Inflammation in Mice. Evidence-based Complementary and Alternative Medicine, 2017, 2017, 1-12.	0.5	20
70	Investigating Real-World Emissions of Chinaâ€™s Heavy-Duty Diesel Trucks: Can SCR Effectively Mitigate NOx Emissions for Highway Trucks?. Aerosol and Air Quality Research, 2017, 17, 2585-2594.	0.9	32
71	Assessment of vehicle emission programs in China during 1998â€“2013: Achievement, challenges and implications. Environmental Pollution, 2016, 214, 556-567.	3.7	164
72	Individual trip chain distributions for passenger cars: Implications for market acceptance of battery electric vehicles and energy consumption by plug-in hybrid electric vehicles. Applied Energy, 2016, 180, 650-660.	5.1	62

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73	Modeling real-world fuel consumption and carbon dioxide emissions with high resolution for light-duty passenger vehicles in a traffic populated city. Energy, 2016, 113, 461-471.	4.5	27
74	Evaluating real-world CO2 and NOX emissions for public transit buses using a remote wireless on-board diagnostic (OBD) approach. Environmental Pollution, 2016, 218, 453-462.	3.7	46
75	Joint measurements of black carbon and particle mass for heavy-duty diesel vehicles using a portable emission measurement system. Atmospheric Environment, 2016, 141, 435-442.	1.9	30
76	High-resolution simulation of link-level vehicle emissions and concentrations for air pollutants in a traffic-populated eastern Asian city. Atmospheric Chemistry and Physics, 2016, 16, 9965-9981.	1.9	54
77	Real-world performance of battery electric buses and their life-cycle benefits with respect to energy consumption and carbon dioxide emissions. Energy, 2016, 96, 603-613.	4.5	183
78	onâ€“road measurement of gaseous emissions and fuel consumption for two hybrid electric vehicles in Macao. Atmospheric Pollution Research, 2015, 6, 858-866.	1.8	33
79	Fuel quality management versus vehicle emission control in China, status quo and future perspectives. Energy Policy, 2015, 79, 87-98.	4.2	54
80	Can propulsion and fuel diversity for the bus fleet achieve the winâ€“win strategy of energy conservation and environmental protection?. Applied Energy, 2015, 147, 92-103.	5.1	77
81	Environmental Justice Aspects of Exposure to PM_{2.5} Emissions from Electric Vehicle Use in China. Environmental Science & Technology, 2015, 49, 13912-13920.	4.6	47
82	Characteristics of On-road Diesel Vehicles: Black Carbon Emissions in Chinese Cities Based on Portable Emissions Measurement. Environmental Science & Technology, 2015, 49, 13492-13500.	4.6	57
83	Real-world emissions and fuel consumption of diesel buses and trucks in Macao: From on-road measurement to policy implications. Atmospheric Environment, 2015, 120, 393-403.	1.9	53
84	Experimental Assessment of NO_x Emissions from 73 Euro 6 Diesel Passenger Cars. Environmental Science & Technology, 2015, 49, 14409-14415.	4.6	83
85	VOC from Vehicular Evaporation Emissions: Status and Control Strategy. Environmental Science & Technology, 2015, 49, 14424-14431.	4.6	89
86	Impacts of load mass on real-world PM1 mass and number emissions from a heavy-duty diesel bus. International Journal of Environmental Science and Technology, 2015, 12, 1261-1268.	1.8	8
87	Mass concentrations and temporal profiles of PM10, PM2.5 and PM1 near major urban roads in Beijing. Frontiers of Environmental Science and Engineering, 2015, 9, 675-684.	3.3	10
88	Real-world emissions of gasoline passenger cars in Macao and their correlation with driving conditions. International Journal of Environmental Science and Technology, 2014, 11, 1135-1146.	1.8	40
89	Characterization and source apportionment of particulate PAHs in the roadside environment in Beijing. Science of the Total Environment, 2014, 470-471, 76-83.	3.9	96
90	Real-world fuel consumption and CO2 emissions of urban public buses in Beijing. Applied Energy, 2014, 113, 1645-1655.	5.1	197

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91	Historic and future trends of vehicle emissions in Beijing, 1998â€“2020: A policy assessment for the most stringent vehicle emission control program in China. Atmospheric Environment, 2014, 89, 216-229.	1.9	159
92	Evaluating the emission status of light-duty gasoline vehicles and motorcycles in Macao with real-world remote sensing measurement. Journal of Environmental Sciences, 2014, 26, 2240-2248.	3.2	33
93	Can Euro V heavy-duty diesel engines, diesel hybrid and alternative fuel technologies mitigate NO X emissions? New evidence from on-road tests of buses in China. Applied Energy, 2014, 132, 118-126.	5.1	103
94	Real-world fuel consumption and CO2 (carbon dioxide) emissions by driving conditions for light-duty passenger vehicles in China. Energy, 2014, 69, 247-257.	4.5	143
95	Chemical characterization of roadside PM2.5 and black carbon in Macao during a summer campaign. Atmospheric Pollution Research, 2014, 5, 381-387.	1.8	24
96	Black carbon at a roadside site in Beijing: Temporal variations and relationships with carbon monoxide and particle number size distribution. Atmospheric Environment, 2013, 77, 213-221.	1.9	61
97	Historical evaluation of vehicle emission control in Guangzhou based on a multi-year emission inventory. Atmospheric Environment, 2013, 76, 32-42.	1.9	66
98	Emission controls and changes in air quality in Guangzhou during the Asian Games. Atmospheric Environment, 2013, 76, 81-93.	1.9	81
99	The challenge to NO_x emission control for heavy-duty diesel vehicles in China. Atmospheric Chemistry and Physics, 2012, 12, 9365-9379.	1.9	141
100	Developing a Vehicle Emissions Factor Model Based on Micro-Traffic Patterns: A Case Study of Beijing Bus Fleet. , 2012, , .		0
101	Electric Vehicles in China: Emissions and Health Impacts. Environmental Science & Technology, 2012, 46, 2018-2024.	4.6	194
102	Energy consumption and CO2 emission impacts of vehicle electrification in three developed regions of China. Energy Policy, 2012, 48, 537-550.	4.2	159
103	Chemical characteristics of size-resolved PM2.5 at a roadside environment in Beijing, China. Environmental Pollution, 2012, 161, 215-221.	3.7	79
104	On-road diesel vehicle emission factors for nitrogen oxides and black carbon in two Chinese cities. Atmospheric Environment, 2012, 46, 45-55.	1.9	114
105	Intake fraction of PM2.5 and NOX from vehicle emissions in Beijing based on personal exposure data. Atmospheric Environment, 2012, 57, 233-243.	1.9	59
106	Real-world fuel efficiency and exhaust emissions of light-duty diesel vehicles and their correlation with road conditions. Journal of Environmental Sciences, 2012, 24, 865-874.	3.2	83
107	On-Road Vehicle Emission Control in Beijing: Past, Present, and Future. Environmental Science & Technology, 2011, 45, 147-153.	4.6	166
108	Exposure of taxi drivers and office workers to traffic-related pollutants in Beijing: A note. Transportation Research, Part D: Transport and Environment, 2011, 16, 78-81.	3.2	13

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109	On-road emission factor distributions of individual diesel vehicles in and around Beijing, China. Atmospheric Environment, 2011, 45, 503-513.	1.9	109
110	Estimating the effects of meteorology on PM2.5 reduction during the 2008 Summer Olympic Games in Beijing, China. Frontiers of Environmental Science and Engineering in China, 2011, 5, 331-341.	0.8	34
111	Characterization of personal exposure concentration of fine particles for adults and children exposed to high ambient concentrations in Beijing, China. Journal of Environmental Sciences, 2010, 22, 1757-1764.	3.2	86
112	The impact of transportation control measures on emission reductions during the 2008 Olympic Games in Beijing, China. Atmospheric Environment, 2010, 44, 285-293.	1.9	199
113	Quantifying the Air Pollutants Emission Reduction during the 2008 Olympic Games in Beijing. Environmental Science & Technology, 2010, 44, 2490-2496.	4.6	327
114	Total versus urban: Well-to-wheels assessment of criteria pollutant emissions from various vehicle/fuel systems. Atmospheric Environment, 2009, 43, 1796-1804.	1.9	78
115	Evaluating the air quality impacts of the 2008 Beijing Olympic Games: On-road emission factors and black carbon profiles. Atmospheric Environment, 2009, 43, 4535-4543.	1.9	122
116	Anthropogenic and natural contributions to regional trends in aerosol optical depth, 1980â€“2006. Journal of Geophysical Research, 2009, 114, .	3.3	200
117	New stochastic simulation capability applied to the GREET model. International Journal of Life Cycle Assessment, 2008, 13, 278-285.	2.2	15
118	Chemical characteristics of airborne particulate matter near major roads and at background locations in Macao, China. Science of the Total Environment, 2003, 317, 159-172.	3.9	44
119	Vertical and horizontal profiles of airborne particulate matter near major roads in Macao, China. Atmospheric Environment, 2002, 36, 4907-4918.	1.9	107
120	SOURCE CONTRIBUTIONS TO AMBIENT CONCENTRATIONS OF CO AND NOX IN THE URBAN AREA OF BEIJING. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2001, 36, 215-228.	0.9	52
121	A study of the emission and concentration distribution of vehicular pollutants in the urban area of Beijing. Atmospheric Environment, 2000, 34, 453-465.	1.9	139
122	Well-to-Wheels Results of Energy Use, Greenhouse Gas Emissions, and Criteria Air Pollutant Emissions of Selected Vehicle/Fuel Systems. , 0, , .		14
123	Mobile Measurements of Carbonaceous Aerosol in Microenvironments to Discern Contributions from Traffic and Solid Fuel Burning. Environmental Science and Technology Letters, 0, , .	3.9	8