

# Kai Zhang

## List of Publications by Year in descending order

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75  
papers

3,243  
citations

201385

27  
h-index

155451

55  
g-index

78  
all docs

78  
docs citations

78  
times ranked

4762  
citing authors

#	ARTICLE	IF	CITATIONS
1	Air pollution and health risks due to vehicle traffic. <i>Science of the Total Environment</i> , 2013, 450-451, 307-316.	3.9	457
2	Impact of meteorological factors on the COVID-19 transmission: A multi-city study in China. <i>Science of the Total Environment</i> , 2020, 726, 138513.	3.9	432
3	Daily Estimation of Ground-Level PM <sub>2.5</sub> Concentrations over Beijing Using 3 km Resolution MODIS AOD. <i>Environmental Science &amp; Technology</i> , 2015, 49, 12280-12288.	4.6	240
4	Optimizing Traffic Control to Reduce Fuel Consumption and Vehicular Emissions. <i>Transportation Research Record</i> , 2009, 2128, 105-113.	1.0	156
5	Assessing Heat Stress and Health among Construction Workers in a Changing Climate: A Review. <i>International Journal of Environmental Research and Public Health</i> , 2018, 15, 247.	1.2	137
6	Vehicle emissions in congestion: Comparison of work zone, rush hour and free-flow conditions. <i>Atmospheric Environment</i> , 2011, 45, 1929-1939.	1.9	136
7	What weather variables are important in predicting heat-related mortality? A new application of statistical learning methods. <i>Environmental Research</i> , 2014, 132, 350-359.	3.7	94
8	Deep learning PM <sub>2.5</sub> concentrations with bidirectional LSTM RNN. <i>Air Quality, Atmosphere and Health</i> , 2019, 12, 411-423.	1.5	76
9	Comparing exposure metrics for classifying "dangerous heat" in heat wave and health warning systems. <i>Environment International</i> , 2012, 46, 23-29.	4.8	61
10	Validating Satellite-Derived Land Surface Temperature with <i>in Situ</i> Measurements: A Public Health Perspective. <i>Environmental Health Perspectives</i> , 2013, 121, 925-931.	2.8	59
11	Impact of the 2011 heat wave on mortality and emergency department visits in Houston, Texas. <i>Environmental Health</i> , 2015, 14, 11.	1.7	58
12	Seasonal variation, formation mechanisms and potential sources of PM <sub>2.5</sub> in two typical cities in the Central Plains Urban Agglomeration, China. <i>Science of the Total Environment</i> , 2019, 657, 657-670.	3.9	58
13	Airborne particulate matter, population mobility and COVID-19: a multi-city study in China. <i>BMC Public Health</i> , 2020, 20, 1585.	1.2	56
14	Traffic-related air pollution and the incidence of childhood central nervous system tumors: Texas, 2001-2009. <i>Pediatric Blood and Cancer</i> , 2015, 62, 1572-1578.	0.8	54
15	Near-road air pollutant concentrations of CO and PM <sub>2.5</sub> : A comparison of MOBILE6.2/CALINE4 and generalized additive models. <i>Atmospheric Environment</i> , 2010, 44, 1740-1748.	1.9	53
16	Forecasting the incidence of tuberculosis in China using the seasonal auto-regressive integrated moving average (SARIMA) model. <i>Journal of Infection and Public Health</i> , 2018, 11, 707-712.	1.9	51
17	Epigenetic age acceleration and metabolic syndrome in the coronary artery risk development in young adults study. <i>Clinical Epigenetics</i> , 2019, 11, 160.	1.8	48
18	Geostatistical exploration of spatial variation of summertime temperatures in the Detroit metropolitan region. <i>Environmental Research</i> , 2011, 111, 1046-1053.	3.7	42

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19	Spatiotemporal analysis of heat and heat wave effects on elderly mortality in Texas, 2006–2011. <i>Science of the Total Environment</i> , 2016, 562, 845-851.	3.9	42
20	Impacts of cold weather on all-cause and cause-specific mortality in Texas, 1990–2011. <i>Environmental Pollution</i> , 2017, 225, 244-251.	3.7	37
21	Characteristics and source apportionment of fine haze aerosol in Beijing during the winter of 2013. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 2573-2584.	1.9	37
22	Predicting daily PM <sub>2.5</sub> concentrations in Texas using high-resolution satellite aerosol optical depth. <i>Science of the Total Environment</i> , 2018, 631-632, 904-911.	3.9	36
23	Type 2 diabetes attributable to PM <sub>2.5</sub> : A global burden study from 1990 to 2019. <i>Environment International</i> , 2021, 156, 106725.	4.8	35
24	Fine particulate matter components and mortality in Greater Houston: Did the risk reduce from 2000 to 2011?. <i>Science of the Total Environment</i> , 2015, 538, 162-168.	3.9	32
25	Fine particulate matter pollution in North China: Seasonal-spatial variations, source apportionment, sector and regional transport contributions. <i>Environmental Research</i> , 2020, 184, 109368.	3.7	32
26	Temperature and Rain Moderate the Effect of Neighborhood Walkability on Walking Time for Seniors in Barcelona. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 14.	1.2	32
27	Meteorological factors, governmental responses and COVID-19: Evidence from four European countries. <i>Environmental Research</i> , 2021, 194, 110596.	3.7	31
28	An Investigation into the Spatial Variability of Near-Surface Air Temperatures in the Detroit, Michigan, Metropolitan Region. <i>Journal of Applied Meteorology and Climatology</i> , 2012, 51, 1290-1304.	0.6	30
29	Characterizing spatial variability of air pollution from vehicle traffic around the Houston Ship Channel area. <i>Atmospheric Environment</i> , 2017, 161, 167-175.	1.9	30
30	Prediction and analysis of near-road concentrations using a reduced-form emission/dispersion model. <i>Environmental Health</i> , 2010, 9, 29.	1.7	29
31	Characterizing Spatial Patterns of Airborne Coarse Particulate (PM <sub>10-2.5</sub> ) Mass and Chemical Components in Three Cities: The Multi-Ethnic Study of Atherosclerosis. <i>Environmental Health Perspectives</i> , 2014, 122, 823-830.	2.8	29
32	Impact of probable interaction of low temperature and ambient fine particulate matter on the function of rats alveolar macrophages. <i>Environmental Toxicology and Pharmacology</i> , 2017, 49, 172-178.	2.0	28
33	Impacts of cold weather on emergency hospital admission in Texas, 2004–2013. <i>Environmental Research</i> , 2019, 169, 139-146.	3.7	28
34	Using Forecast and Observed Weather Data to Assess Performance of Forecast Products in Identifying Heat Waves and Estimating Heat Wave Effects on Mortality. <i>Environmental Health Perspectives</i> , 2014, 122, 912-918.	2.8	27
35	The 2011 heat wave in Greater Houston: Effects of land use on temperature. <i>Environmental Research</i> , 2014, 135, 81-87.	3.7	25
36	COPD rat model is more susceptible to cold stress and PM <sub>2.5</sub> exposure and the underlying mechanism. <i>Environmental Pollution</i> , 2018, 241, 26-34.	3.7	24

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37	Seasonal variations in the mass characteristics and optical properties of carbonaceous constituents of PM <sub>2.5</sub> in six cities of North China. <i>Environmental Pollution</i> , 2021, 268, 115780.	3.7	23
38	Cold exposure, gut microbiota, and hypertension: A mechanistic study. <i>Science of the Total Environment</i> , 2022, 833, 155199.	3.9	23
39	Risks of developing breast and colorectal cancer in association with incomes and geographic locations in Texas: a retrospective cohort study. <i>BMC Cancer</i> , 2016, 16, 294.	1.1	22
40	Time allocation shifts and pollutant exposure due to traffic congestion: An analysis using the national human activity pattern survey. <i>Science of the Total Environment</i> , 2009, 407, 5493-5500.	3.9	20
41	Fine particulate matter components and emergency department visits among a privately insured population in Greater Houston. <i>Science of the Total Environment</i> , 2016, 566-567, 521-527.	3.9	20
42	Short-term associations of fine particulate matter components and emergency hospital admissions among a privately insured population in Greater Houston. <i>Atmospheric Environment</i> , 2016, 147, 369-375.	1.9	19
43	Spatiotemporal Variations of Ambient Concentrations of Trace Elements in a Highly Polluted Region of China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 4186-4202.	1.2	19
44	Population-Based Study of Traffic-Related Air Pollution and Obesity in Mexican Americans. <i>Obesity</i> , 2020, 28, 412-420.	1.5	17
45	A quantitative assessment of atmospheric emissions and spatial distribution of trace elements from natural sources in China. <i>Environmental Pollution</i> , 2020, 259, 113918.	3.7	17
46	Fine particulate matter (PM <sub>2.5</sub> /PM <sub>1.0</sub> ) in Beijing, China: Variations and chemical compositions as well as sources. <i>Journal of Environmental Sciences</i> , 2022, 121, 187-198.	3.2	17
47	Maternal residential proximity to major roadways at delivery and childhood central nervous system tumors. <i>Environmental Research</i> , 2016, 146, 315-322.	3.7	16
48	Cold stress provokes lung injury in rats co-exposed to fine particulate matter and lipopolysaccharide. <i>Ecotoxicology and Environmental Safety</i> , 2019, 168, 9-16.	2.9	16
49	Interactive effects of cold spell and air pollution on outpatient visits for anxiety in three subtropical Chinese cities. <i>Science of the Total Environment</i> , 2022, 817, 152789.	3.9	16
50	Public Health Impact and Economic Costs of Volkswagen's Lack of Compliance with the United States' Emission Standards. <i>International Journal of Environmental Research and Public Health</i> , 2016, 13, 891.	1.2	15
51	Impact of high, low, and non-optimum temperatures on chronic kidney disease in a changing climate, 1990-2019: A global analysis. <i>Environmental Research</i> , 2022, 212, 113172.	3.7	14
52	A Case-Crossover Analysis of Indoor Heat Exposure on Mortality and Hospitalizations among the Elderly in Houston, Texas. <i>Environmental Health Perspectives</i> , 2020, 128, 127007.	2.8	13
53	Differences in environmental exposure assignment due to residential mobility among children with a central nervous system tumor: Texas, 1995-2009. <i>Journal of Exposure Science and Environmental Epidemiology</i> , 2017, 27, 41-46.	1.8	12
54	School Parks as a Community Health Resource: Use of Joint-Use Parks by Children before and during COVID-19 Pandemic. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 9237.	1.2	11

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55	Associations between the built environment and body mass index in the Mexican American Mano A Mano Cohort. <i>Science of the Total Environment</i> , 2019, 654, 456-462.	3.9	10
56	Heat effects among migrant and seasonal farmworkers: a case study in Colorado. <i>Occupational and Environmental Medicine</i> , 2016, 73, 324-328.	1.3	9
57	Health impacts and spatiotemporal variations of fine particulate and its typical toxic constituents in five urban agglomerations of China. <i>Science of the Total Environment</i> , 2022, 806, 151459.	3.9	9
58	Weather is not significantly correlated with destination-specific transport-related physical activity among adults: A large-scale temporally matched analysis. <i>Preventive Medicine</i> , 2017, 101, 133-136.	1.6	7
59	The Impact of Cold and Heat on Years of Life Lost in a Northwestern Chinese City with Temperate Continental Climate. <i>International Journal of Environmental Research and Public Health</i> , 2019, 16, 3529.	1.2	6
60	School proximity and census tract correlates of e-cigarette specialty retail outlets (vape shops) in central Texas. <i>Preventive Medicine Reports</i> , 2020, 18, 101079.	0.8	6
61	Human Responses and Adaptation in a Changing Climate: A Framework Integrating Biological, Psychological, and Behavioural Aspects. <i>Life</i> , 2021, 11, 895.	1.1	6
62	Impact of paternal education on epigenetic ageing in adolescence and mid-adulthood: a multi-cohort study in the USA and Mexico. <i>International Journal of Epidemiology</i> , 2022, 51, 870-884.	0.9	6
63	The association between drought and outpatient visits for respiratory diseases in four northwest cities of China. <i>Climatic Change</i> , 2021, 167, 1.	1.7	5
64	Significant but Spatiotemporal-Heterogeneous Health Risks Caused by Airborne Exposure to Multiple Toxic Trace Elements in China. <i>Environmental Science &amp; Technology</i> , 2021, 55, 12818-12830.	4.6	5
65	Development of season-dependent land use regression models to estimate BC and PM1 exposure. <i>Science of the Total Environment</i> , 2021, 793, 148540.	3.9	5
66	Indoor solid fuel use and renal function among middle-aged and older adults: A national study in rural China. <i>Environmental Research</i> , 2022, 206, 112588.	3.7	5
67	An assessment of emission event trends within the Greater Houston area during 2003â€“2013. <i>Air Quality, Atmosphere and Health</i> , 2017, 10, 543-554.	1.5	4
68	The combined effect of ambient ozone exposure and toxic air releases on hospitalization for asthma among children in Harris County, Texas. <i>International Journal of Environmental Health Research</i> , 2018, 28, 358-378.	1.3	4
69	Health-Based Geographic Information Systems for Mapping and Risk Modeling of Infectious Diseases and COVID-19 to Support Spatial Decision-Making. <i>Advances in Experimental Medicine and Biology</i> , 2022, 1368, 167-188.	0.8	4
70	Leukocyte mitochondrial DNA copy number and built environment in Mexican Americans: a cross-sectional study. <i>Scientific Reports</i> , 2020, 10, 14988.	1.6	3
71	Accuracy of an estimated core temperature algorithm for agricultural workers. <i>Archives of Environmental and Occupational Health</i> , 2022, , 1-10.	0.7	2
72	Impact of Absolute Humidity and Temperature on Eczema. <i>Biomedical and Environmental Sciences</i> , 2021, 34, 61-65.	0.2	2

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73	The probable roles of valsartan in alleviating chronic obstructive pulmonary disease following co-exposure to cold stress and fine particulate matter. <i>Environmental Toxicology and Pharmacology</i> , 2018, 60, 230-236.	2.0	1
74	Impact of Weaving Segment Configuration Designs on Drivers' Acute Driving Stress: A Case Study on Houston Freeway Weaving Segments. <i>International Journal of Civil Engineering</i> , 2020, 18, 641-653.	0.9	1
75	Land use mix and leukocyte telomere length in Mexican Americans. <i>Scientific Reports</i> , 2021, 11, 19742.	1.6	1