Yaqiang Wang

List of Publications by Year
in descending order

120 papers	7,195 citations	61984 43 h-index	62596 80 g-index
124 all docs	124 docs citations	124 times ranked	5061 citing authors

#	Article	IF	Citations
1	TrajStat: GIS-based software that uses various trajectory statistical analysis methods to identify potential sources from long-term air pollution measurement data. Environmental Modelling and Software, 2009, 24, 938-939.	4.5	772
2	Atmospheric aerosol compositions in China: spatial/temporal variability, chemical signature, regional haze distribution and comparisons with global aerosols. Atmospheric Chemistry and Physics, 2012, 12, 779-799.	4.9	741
3	Ground-based aerosol climatology of China: aerosol optical depths from the China Aerosol Remote Sensing Network (CARSNET) 2002â€“2013. Atmospheric Chemistry and Physics, 2015, 15, 7619-7652.	4.9	224
4	Feedback effects of boundary-layer meteorological factors on cumulative explosive growth of PM_{2.5} during winter heavy pollution episodes in Beijing from 2013 to 2016. Atmospheric Chemistry and Physics, 2018, 18, 247-258.	4.9	196
5	Satellite-derived PM2.5 concentration trends over Eastern China from 1998 to 2016: Relationships to emissions and meteorological parameters. Environmental Pollution, 2019, 247, 1125-1133.	7.5	176
6	Large contribution of meteorological factors to inter-decadal changes in regional aerosol optical depth. Atmospheric Chemistry and Physics, 2019, 19, 10497-10523.	4.9	169
7	A study of the meteorological causes of a prolonged and severe haze episode in January 2013 over central-eastern China. Atmospheric Environment, 2014, 98, 146-157.	4.1	158
8	The impact of meteorological changes from 2013 to 2017 on PM2.5 mass reduction in key regions in China. Science China Earth Sciences, 2019, 62, 1885-1902.	5.2	157
9	æˆ‘å›½é›¾-éœ¾æˆå› åŠå…¶æ²»ç†çš„æ€è€ƒ. Chinese Science Bulletin, 2013, 58, 1178-1187.	0.7	151
10	The contribution from distant dust sources to the atmospheric particulate matter loadings at XiAn, China during spring. Science of the Total Environment, 2006, 368, 875-883.	8.0	149
11	Spatial distribution and interannual variation of surface PM₁₀ concentrations over eighty-six Chinese cities. Atmospheric Chemistry and Physics, 2010, 10, 5641-5662.	4.9	144
12	Attributions of meteorological and emission factors to the 2015 winter severe haze pollution episodes in China's Jing-Jin-Ji area. Atmospheric Chemistry and Physics, 2017, 17, 2971-2980.	4.9	127
13	Emission inventories of primary particles and pollutant gases for China. Science Bulletin, 2011, 56, 781-788.	1.7	120
14	Changes in chemical components of aerosol particles in different haze regions in China from 2006 to 2013 and contribution of meteorological factors. Atmospheric Chemistry and Physics, 2015, 15, 12935-12952.	4.9	119
15	Temporal and spatial variations in sand and dust storm events in East Asia from 2007 to 2016: Relationships with surface conditions and climate change. Science of the Total Environment, 2018, 633, 452-462.	8.0	118
16	The strong El NiÃ±o of 2015/16 and its dominant impacts on global and China's climate. Journal of Meteorological Research, 2016, 30, 283-297.	2.4	115
17	Relative contributions of boundary-layer meteorological factors to the explosive growth of PM2.5 during the red-alert heavy pollution episodes in Beijing in December 2016. Journal of Meteorological Research, 2017, 31, 809-819.	2.4	115
18	Aerosol optical properties and direct radiative forcing based on measurements from the China Aerosol Remote Sensing Network (CARSNET) in eastern China. Atmospheric Chemistry and Physics, 2018, 18, 405-425.	4.9	113

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19	CHANGES OF ATMOSPHERIC COMPOSITION AND OPTICAL PROPERTIES OVER BEIJINGâ€"2008 Olympic Monitoring Campaign. Bulletin of the American Meteorological Society, 2009, 90, 1633-1652.	3.3	110
20	Characteristics of visibility and particulate matter (PM) in an urban area of Northeast China. Atmospheric Pollution Research, 2013, 4, 427-434.	3.8	109
21	Aerosol optical properties based on ground measurements over the Chinese Yangtze Delta Region. Atmospheric Environment, 2010, 44, 2587-2596.	4.1	105
22	Spatial distribution of aerosol microphysical and optical properties and direct radiative effect from the China Aerosol Remote Sensing Network. Atmospheric Chemistry and Physics, 2019, 19, 11843-11864.	4.9	101
23	Interaction Between Planetary Boundary Layer and PM2.5 Pollution in Megacities in China: a Review. Current Pollution Reports, 2019, 5, 261-271.	6.6	100
24	Air stagnation and its impact on air quality during winter in Sichuan and Chongqing, southwestern China. Science of the Total Environment, 2018, 635, 576-585.	8.0	97
25	The two-way feedback mechanism between unfavorable meteorological conditions and cumulative aerosol pollution in various haze regions of China. Atmospheric Chemistry and Physics, 2019, 19, 3287-3306.	4.9	97
26	Aerosol optical properties under the condition of heavy haze over an urban site of Beijing, China. Environmental Science and Pollution Research, 2015, 22, 1043-1053.	5.3	95
27	Synergy of satellite and ground based observations in estimation of particulate matter in eastern China. Science of the Total Environment, 2012, 433, 20-30.	8.0	89
28	Surface observation of sand and dust storm in East Asia and its application in CUACE/Dust. Atmospheric Chemistry and Physics, 2008, 8, 545-553.	4.9	87
29	Construction of a virtual PM2.5 observation network in China based on high-density surface meteorological observations using the Extreme Gradient Boosting model. Environment International, 2020, 141, 105801.	10.0	85
30	Significant Changes in Chemistry of Fine Particles in Wintertime Beijing from 2007 to 2017: Impact of Clean Air Actions. Environmental Science & Technology, 2020, 54, 1344-1352.	10.0	84
31	The interdecadal worsening of weather conditions affecting aerosol pollution in the Beijing area in relation to climate warming. Atmospheric Chemistry and Physics, 2018, 18, 5991-5999.	4.9	79
32	Heavy aerosol pollution episodes in winter Beijing enhanced by radiative cooling effects of aerosols. Atmospheric Research, 2018, 209, 59-64.	4.1	74
33	Aerosol optical characteristics and their vertical distributions under enhanced haze pollution events: effect of the regional transport of different aerosol types over eastern China. Atmospheric Chemistry and Physics, 2018, 18, 2949-2971.	4.9	69
34	Global sand and dust storms in 2008: Observation and HYSPLIT model verification. Atmospheric Environment, 2011, 45, 6368-6381.	4.1	67
35	Mixing state and hygroscopicity of dust and haze particles before leaving Asian continent. Journal of Geophysical Research D: Atmospheres, 2014, 119, 1044-1059.	3.3	67
36	Aerosol optical properties of regional background atmosphere in Northeast China. Atmospheric Environment, 2010, 44, 4404-4412.	4.1	66

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37	Diagnostic identification of the impact of meteorological conditions on PM2.5 concentrations in Beijing. Atmospheric Environment, 2013, 81, 158-165.	4.1	62
38	Aerosol optical properties at Mt. Waliguan Observatory, China. Atmospheric Environment, 2011, 45, 6004-6009.	4.1	60
39	Development and evaluation of an operational SDS forecasting system for East Asia: CUACE/Dust. Atmospheric Chemistry and Physics, 2008, 8, 787-798.	4.9	59
40	Robust prediction of hourly PM2.5 from meteorological data using LightGBM. National Science Review, 2021, 8, nwaa307.	9.5	59
41	Variation of Aerosol Optical Properties over the Taklimakan Desert in China. Aerosol and Air Quality Research, 2013, 13, 777-785.	2.1	58
42	Widespread Albedo Decreasing and Induced Melting of Himalayan Snow and Ice in the Early 21st Century. PLoS ONE, 2015, 10, e0126235.	2.5	53
43	Record-breaking dust loading during two mega dust storm events over northern China in March 2021: aerosol optical and radiative properties and meteorological drivers. Atmospheric Chemistry and Physics, 2022, 22, 7905-7932.	4.9	48
44	Analyses of aerosol optical properties and direct radiative forcing over urban and industrial regions in Northeast China. Meteorology and Atmospheric Physics, 2015, 127, 345-354.	2.0	46
45	Evaluating the contributions of changed meteorological conditions and emission to substantial reductions of PM2.5 concentration from winter 2016 to 2017 in Central and Eastern China. Science of the Total Environment, 2020, 716, 136892.	8.0	46
46	Temporal and spatial variations of haze and fog and the characteristics of PM2.5 during heavy pollution episodes in China from 2013 to 2018. Atmospheric Pollution Research, 2020, 11, 1847-1856.	3.8	41
47	Retrievals of fine mode light-absorbing carbonaceous aerosols from POLDER/PARASOL observations over East and South Asia. Remote Sensing of Environment, 2020, 247, 111913.	11.0	40
48	Five-year observation of aerosol optical properties and its radiative effects to planetary boundary layer during air pollution episodes in North China: Intercomparison of a plain site and a mountainous site in Beijing. Science of the Total Environment, 2019, 674, 140-158.	8.0	38
49	Aerosol background at two remote CAWNET sites in western China. Science of the Total Environment, 2009, 407, 3518-3529.	8.0	35
50	Aerosol vertical distribution and optical properties of different pollution events in Beijing in autumn 2017. Atmospheric Research, 2019, 215, 193-207.	4.1	34
51	Water vapor variation and the effect of aerosols in China. Atmospheric Environment, 2017, 165, 322-335.	4.1	33
52	Variation in MERRA-2 aerosol optical depth over the Yangtze River Delta from 1980 to 2016. Theoretical and Applied Climatology, 2019, 136, 363-375.	2.8	33
53	The Relationship of PM Variation with Visibility and Mixing-Layer Height under Hazy/Foggy Conditions in the Multi-Cities of Northeast China. International Journal of Environmental Research and Public Health, 2017, 14, 471.	2.6	32
54	Application of aerosol optical properties to estimate aerosol type from ground-based remote sensing observation at urban area of northeastern China. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 132, 37-47.	1.6	29

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55	Biogeographical estimates of allergenic pollen transport over regional scales: Common ragweed and Szeged, Hungary as a test case. Agricultural and Forest Meteorology, 2016, 221, 94-110.	4.8	29
56	Characteristics of clay minerals in asian dust and their environmental significance. Particuology: Science and Technology of Particles, 2005, 3, 260-264.	0.4	28
57	Mass concentration and mineralogical characteristics of aerosol particles collected at Dunhuang during ACE-Asia. Advances in Atmospheric Sciences, 2006, 23, 291-298.	4.3	28
58	Development of an integrating sphere calibration method for Cimel sunphotometers in China aerosol remote sensing network. Particuology, 2014, 13, 88-99.	3.6	28
59	PLAM â€“ a meteorological pollution index for air quality and its applications in fog-haze forecasts in North China. Atmospheric Chemistry and Physics, 2016, 16, 1353-1364.	4.9	28
60	Chemical Components, Variation, and Source Identification of PM1 during the Heavy Air Pollution Episodes in Beijing in December 2016. Journal of Meteorological Research, 2018, 32, 1-13.	2.4	28
61	Multiyear Groundâ€Based Measurements of Aerosol Optical Properties and Direct Radiative Effect Over Different Surface Types in Northeastern China. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,887.	3.3	27
62	How aerosol transport from the North China plain contributes to air quality in northeast China. Science of the Total Environment, 2020, 738, 139555.	8.0	27
63	Study of Aerosol Optical Properties Based on Ground Measurements over Sichuan Basin, China. Aerosol and Air Quality Research, 2014, 14, 905-915.	2.1	27
64	Identifying the dominant local factors of 2000â€“2019 changes in dust loading over East Asia. Science of the Total Environment, 2021, 777, 146064.	8.0	25
65	Aerosol Optical Properties Based on Ground and Satellite Retrievals during a Serious Haze Episode in December 2015 over Beijing. Atmosphere, 2016, 7, 70.	2.3	24
66	Seasonal variability and trends in global type-segregated aerosol optical depth as revealed by MISR satellite observations. Science of the Total Environment, 2021, 787, 147543.	8.0	24
67	Aerosol optical properties observation and its relationship to meteorological conditions and emission during the Chinese National Day and Spring Festival holiday in Beijing. Atmospheric Research, 2017, 197, 188-200.	4.1	23
68	Influence of meteorological conditions on explosive increase in O3 concentration in troposphere. Science of the Total Environment, 2019, 652, 1228-1241.	8.0	23
69	Long-Term Variation of Black Carbon Aerosol in China Based on Revised Aethalometer Monitoring Data. Atmosphere, 2020, 11, 684.	2.3	23
70	The Significant Contribution of Small-Sized and Spherical Aerosol Particles to the Decreasing Trend in Total Aerosol Optical Depth over Land from 2003 to 2018. Engineering, 2022, 16, 82-92.	6.7	23
71	A global-scale analysis of the MISR Level-3 aerosol optical depth (AOD) product: Comparison with multi-platform AOD data sources. Atmospheric Pollution Research, 2021, 12, 101238.	3.8	23
72	Reconstructing 6-hourly PM_{2.5} datasets from 1960 to 2020 in China. Earth System Science Data, 2022, 14, 3197-3211.	9.9	23

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73	Reflections on the threshold for PM_{2.5} explosive growth in the cumulative stage of winter heavy aerosol pollution episodes (HPEs) in Beijing. Tellus, Series B: Chemical and Physical Meteorology, 2022, 71, 1528134.	1.6	22
74	On the influence of atmospheric super-saturation layer on China's heavy haze-fog events. Atmospheric Environment, 2017, 171, 261-271.	4.1	20
75	Aqueous-phase reactions occurred in the PM_{2.5} cumulative explosive growth during the heavy pollution episode (HPE) in 2016 Beijing wintertime. Tellus, Series B: Chemical and Physical Meteorology, 2022, 71, 1620079.	1.6	20
76	The two-way feedback effect between aerosol pollution and planetary boundary layer structure on the explosive rise of PM2.5 after the â€œTen Statements of Atmosphereâ€•in Beijing. Science of the Total Environment, 2020, 709, 136259.	8.0	20
77	Observational study of aerosol hygroscopic growth on scattering coefficient in Beijing: A case study in March of 2018. Science of the Total Environment, 2019, 685, 239-247.	8.0	19
78	Comparison of Submicron Particles at a Rural and an Urban Site in the North China Plain during the December 2016 Heavy Pollution Episodes. Journal of Meteorological Research, 2018, 32, 26-37.	2.4	18
79	The Impacts of Different PBL Schemes on the Simulation of PM_{2.5}during Severe Haze Episodes in the Jing-Jin-Ji Region and Its Surroundings in China. Advances in Meteorology, 2016, 2016, 1-15.	1.6	17
80	Characteristics of chemical composition and role of meteorological factors during heavy aerosol pollution episodes in northern Beijing area in autumn and winter of 2015. Tellus, Series B: Chemical and Physical Meteorology, 2022, 69, 1347484.	1.6	17
81	Interdecadal changes of summer aerosol pollution in the Yangtze River Basin of China, the relative influence of meteorological conditions and the relation to climate change. Science of the Total Environment, 2018, 630, 46-52.	8.0	17
82	Aerosol Optical Properties over Beijing during the World Athletics Championships and Victory Day Military Parade in August and September 2015. Atmosphere, 2016, 7, 47.	2.3	16
83	Interdecadal variation in aerosol optical properties and their relationships to meteorological parameters over northeast China from 1980 to 2017. Chemosphere, 2020, 247, 125737.	8.2	15
84	Aerosol and gaseous pollutant characteristics during the heating season (winterâ€“spring transition) in the Harbin-Changchun megalopolis, northeastern China. Journal of Atmospheric and Solar-Terrestrial Physics, 2019, 188, 26-43.	1.6	14
85	Relatively weak meteorological feedback effect on PM2.5 mass change in Winter 2017/18 in the Beijing area: Observational evidence and machine-learning estimations. Science of the Total Environment, 2019, 664, 140-147.	8.0	14
86	The dominant mechanism of the explosive rise of PM2.5 after significant pollution emissions reduction in Beijing from 2017 to the COVID-19 pandemic in 2020. Atmospheric Pollution Research, 2021, 12, 272-281.	3.8	13
87	Optical and radiative properties of aerosols during a severe haze episode over the North China Plain in December 2016. Journal of Meteorological Research, 2017, 31, 1045-1061.	2.4	12
88	Climatology and trends of aerosol optical depth with different particle size and shape in northeast China from 2001 to 2018. Science of the Total Environment, 2021, 763, 142979.	8.0	12
89	Assessing the pollutant evolution mechanisms of heavy pollution episodes in the Yangtze-Huaihe valley: A multiscale perspective. Atmospheric Environment, 2021, 244, 117986.	4.1	12
90	Aerosol optical properties and its type classification based on multiyear joint observation campaign in north China plain megalopolis. Chemosphere, 2021, 273, 128560.	8.2	12

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91	Multi-Year Variation of Ozone and Particulate Matter in Northeast China Based on the Tracking Air Pollution in China (TAP) Data. International Journal of Environmental Research and Public Health, 2022, 19, 3830.	2.6	12
92	Aerosol Hygroscopicity during the Haze Red-Alert Period in December 2016 at a Rural Site of the North China Plain. Journal of Meteorological Research, 2018, 32, 38-48.	2.4	11
93	Contribution distinguish between emission reduction and meteorological conditions to â€œBlue Skyâ€• Atmospheric Environment, 2018, 190, 209-217.	4.1	11
94	Deep Learning for Polarimetric Radar Quantitative Precipitation Estimation during Landfalling Typhoons in South China. Remote Sensing, 2021, 13, 3157.	4.0	11
95	On the fossil and non-fossil fuel sources of carbonaceous aerosol with radiocarbon and AMS-PMF methods during winter hazy days in a rural area of North China plain. Environmental Research, 2022, 208, 112672.	7.5	11
96	Extensive characterization of aerosol optical properties and chemical component concentrations: Application of the GRASP/Component approach to long-term AERONET measurements. Science of the Total Environment, 2022, 812, 152553.	8.0	11
97	Analysis of the Error in Retrievals of Aerosol Optical Properties from Sunphotometer Measurements of CARSNET Due to a Variety of Objective Factors. Atmosphere, 2016, 7, 9.	2.3	10
98	The effects of the â€œtwo-way feedback mechanismâ€•on the maintenance of persistent heavy aerosol pollution over areas with relatively light aerosol pollution in northwest China. Science of the Total Environment, 2019, 688, 642-652.	8.0	10
99	Aerosol vertical mass flux measurements during heavy aerosol pollution episodes at a rural site and an urban site in the Beijing area of the North China Plain. Atmospheric Chemistry and Physics, 2019, 19, 12857-12874.	4.9	10
100	Assessment of In-situ Langley Calibration of CE-318 Sunphotometer at Mt. Waliguan Observatory, China. Scientific Online Letters on the Atmosphere, 2011, 7, 89-92.	1.4	8
101	Detection and attribution of regional CO2 concentration anomalies using surface observations. Atmospheric Environment, 2015, 123, 88-101.	4.1	8
102	Aerosol Optical Properties Retrieved from a Prede Sky Radiometer over an Urban Site of Beijing, China. Journal of the Meteorological Society of Japan, 2014, 92A, 17-31.	1.8	7
103	Attribution of the worse aerosol pollution in March 2018 in Beijing to meteorological variability. Atmospheric Research, 2021, 250, 105294.	4.1	7
104	Temperature Forecasting Correction Based on Operational GRAPES-3km Model Using Machine Learning Methods. Atmosphere, 2022, 13, 362.	2.3	7
105	Seasonal variation, source, and regional representativeness of the background aerosol from two remote sites in western China. Environmental Monitoring and Assessment, 2010, 167, 265-288.	2.7	6
106	Investigation of the Optical Properties of Aerosols over the Coastal Region at Dalian, Northeast China. Atmosphere, 2016, 7, 103.	2.3	6
107	Atmospheric visibility variation over global land surface during 1973â€"2012: Influence of meteorological factors and effect of aerosol, cloud on ABL evolution. Atmospheric Pollution Research, 2020, 11, 730-743.	3.8	6
108	Observational study of the PM2.5 and O3 superposition-composite pollution event during spring 2020 in Beijing associated with the water vapor conveyor belt in the northern hemisphere. Atmospheric Environment, 2022, 272, 118966.	4.1	5

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109	A Study on Parameterization of the Beijing Winter Heavy Haze Events Associated with Height of Pollution Mixing Layer. Advances in Meteorology, 2017, 2017, 1-11.	1.6	4
110	Temporal variation and source identification of black carbon at Linâ€™an and Longfengshan regional background stations in China. Journal of Meteorological Research, 2017, 31, 1070-1084.	2.4	4
111	Drivers of the rapid rise and daily-based accumulation in PM1. Science of the Total Environment, 2021, 760, 143394.	8.0	4
112	OutlierFlag: A Tool for Scientific Data Quality Control by Outlier Data Flagging. Journal of Open Research Software, 2016, 4, 20.	5.9	4
113	Classification of the Circulation Patterns Related to Strong Dust Weather in China Using a Combination of the Lambâ€"Jenkinson and k-Means Clustering Methods. Atmosphere, 2021, 12, 1545.	2.3	4
114	Regional prediction of carbon isotopes in soil carbonates for Asian dust source tracer. Atmospheric Environment, 2016, 142, 1-8.	4.1	3
115	The propagation of fog and its related pollutants in the Central and Eastern China in winter. Atmospheric Research, 2022, 265, 105914.	4.1	3
116	Effects of Different Aerosols on the Air Pollution and Their Relationship With Meteorological Parameters in North China Plain. Frontiers in Environmental Science, 2022, 10, .	3.3	3
117	Reconstruction of Missing Data in Weather Radar Image Sequences Using Deep Neuron Networks. Applied Sciences (Switzerland), 2021, 11, 1491.	2.5	2
118	The Different Impacts of Emissions and Meteorology on PM2.5 Changes in Various Regions in China: A Case Study. Atmosphere, 2022, 13, 222.	2.3	2
119	Comparison of Aerosol Optical Properties Between Two Nearby Urban Sites in Beijing, China. Aerosol Science and Engineering, 2017, 1, 78-92.	1.9	1
120	A Gis Based Seismic Hazard Zonation System of Loess for Lanzhou City. , 2017, , 161-164.		0