

Qiang Zhang

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/6403584/qiang-zhang-publications-by-year.pdf>

Version: 2024-04-20

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

106
papers

13,419
citations

52
h-index

115
g-index

118
ext. papers

18,033
ext. citations

10.9
avg, IF

6.59
L-index

#	Paper	IF	Citations
106	Decadal Variabilities in Tropospheric Nitrogen Oxides Over United States, Europe, and China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022 , 127, e2021JD035872	4.4	1
105	Near-real-time global gridded daily CO emissions.. <i>Innovation(China)</i> , 2022 , 3, 100182	17.8	1
104	Bimodal distribution of size-resolved particle effective density: results from a short campaign in a rural environment over the North China Plain. <i>Atmospheric Chemistry and Physics</i> , 2022 , 22, 2029-2047	6.8	1
103	Decline in bulk deposition of air pollutants in China lags behind reductions in emissions. <i>Nature Geoscience</i> , 2022 , 15, 190-195	18.3	2
102	New WHO global air quality guidelines help prevent premature deaths in China.. <i>National Science Review</i> , 2022 , 9, nwac055	10.8	0
101	Land-use emissions embodied in international trade.. <i>Science</i> , 2022 , 376, 597-603	33.3	4
100	Health co-benefits of climate change mitigation depend on strategic power plant retirements and pollution controls. <i>Nature Climate Change</i> , 2021 , 11, 1077-1083	21.4	3
99	Relating geostationary satellite measurements of aerosol optical depth (AOD) over East Asia to fine particulate matter (PM _{2.5}): insights from the KORUS-AQ aircraft campaign and GEOS-Chem model simulations. <i>Atmospheric Chemistry and Physics</i> , 2021 , 21, 16775-16791	6.8	4
98	Geophysical constraints on the reliability of solar and wind power worldwide. <i>Nature Communications</i> , 2021 , 12, 6146	17.4	8
97	Ozone pollution in the North China Plain spreading into the late-winter haze season. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	42
96	Control of particulate nitrate air pollution in China. <i>Nature Geoscience</i> , 2021 , 14, 389-395	18.3	28
95	Changes in China's anthropogenic emissions and air quality during the COVID-19 pandemic in 2020. <i>Earth System Science Data</i> , 2021 , 13, 2895-2907	10.5	42
94	Comparison of Current and Future PM _{2.5} Air Quality in China Under CMIP6 and DPEC Emission Scenarios. <i>Geophysical Research Letters</i> , 2021 , 48, e2021GL093197	4.9	3
93	Drivers of PM _{2.5} air pollution deaths in China 2002-2017. <i>Nature Geoscience</i> , 2021 , 14, 645-650	18.3	30
92	Economic footprint of California wildfires in 2018. <i>Nature Sustainability</i> , 2021 , 4, 252-260	22.1	31
91	Air quality and health benefits of China's current and upcoming clean air policies. <i>Faraday Discussions</i> , 2021 , 226, 584-606	3.6	6
90	Carbon and air pollutant emissions from China's cement industry 1990-2015: trends, evolution of technologies, and drivers. <i>Atmospheric Chemistry and Physics</i> , 2021 , 21, 1627-1647	6.8	16

89	The underappreciated role of agricultural soil nitrogen oxide emissions in ozone pollution regulation in North China. <i>Nature Communications</i> , 2021 , 12, 5021	17.4	17
88	Tracking PM and O Pollution and the Related Health Burden in China 2013-2020.. <i>Environmental Science & Technology</i> , 2021 ,	10.3	2
87	Dynamic projection of anthropogenic emissions in China: methodology and 2015-2050 emission pathways under a range of socio-economic, climate policy, and pollution control scenarios. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 5729-5757	6.8	38
86	Contribution of hydroxymethanesulfonate (HMS) to severe winter haze in the North China Plain. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 5887-5897	6.8	19
85	Particle Size and Mixing State of Freshly Emitted Black Carbon from Different Combustion Sources in China. <i>Environmental Science & Technology</i> , 2020 , 54, 7766-7774	10.3	6
84	Air quality and climate change, Topic 3 of the Model Inter-Comparison Study for Asia Phase III (MICS-Asia III) [Part II]: aerosol radiative effects and aerosol feedbacks. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 1147-1161	6.8	7
83	China's emission control strategies have suppressed unfavorable influences of climate on wintertime PM _{2.5} concentrations in Beijing since 2002. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 1497-1505	6.8	28
82	Effect of changing NO _x lifetime on the seasonality and long-term trends of satellite-observed tropospheric NO ₂ columns over China. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 1483-1495	6.8	71
81	Potential Effect of Halogens on Atmospheric Oxidation and Air Quality in China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020 , 125, e2019JD032058	4.4	15
80	Aerosol pH and chemical regimes of sulfate formation in aerosol water during winter haze in the North China Plain. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 11729-11746	6.8	17
79	An inversion of NO _x and non-methane volatile organic compound (NMVOC) emissions using satellite observations during the KORUS-AQ campaign and implications for surface ozone over East Asia. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 9837-9854	6.8	15
78	Near-real-time monitoring of global CO emissions reveals the effects of the COVID-19 pandemic. <i>Nature Communications</i> , 2020 , 11, 5172	17.4	204
77	Satellite-based estimates of decline and rebound in China's CO emissions during COVID-19 pandemic. <i>Science Advances</i> , 2020 , 6,	14.3	58
76	Secondary inorganic aerosol during heating season in a megacity in Northeast China: Evidence for heterogeneous chemistry in severe cold climate region. <i>Chemosphere</i> , 2020 , 261, 127769	8.4	6
75	Weakening aerosol direct radiative effects mitigate climate penalty on Chinese air quality. <i>Nature Climate Change</i> , 2020 , 10, 845-850	21.4	16
74	Integration of field observation and air quality modeling to characterize Beijing aerosol in different seasons. <i>Chemosphere</i> , 2020 , 242, 125195	8.4	6
73	Emissions and health impacts from global shipping embodied in US-China bilateral trade. <i>Nature Sustainability</i> , 2019 , 2, 1027-1033	22.1	22
72	Impacts of climate change on future air quality and human health in China. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 17193-17200	11.5	96

71	Rapid transition in winter aerosol composition in Beijing from 2014 to 2017: response to clean air actions. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 11485-11499	6.8	109
70	Response of aerosol chemistry to clean air action in Beijing, China: Insights from two-year ACSM measurements and model simulations. <i>Environmental Pollution</i> , 2019 , 255, 113345	9.3	46
69	Dominant role of emission reduction in PM _{2.5} air quality improvement in Beijing during 2013–2017: a model-based decomposition analysis. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 6125-6146	6.8	183
68	Ammonia emission control in China would mitigate haze pollution and nitrogen deposition, but worsen acid rain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 7760-7765	11.5	172
67	The 2005–2016 Trends of Formaldehyde Columns Over China Observed by Satellites: Increasing Anthropogenic Emissions of Volatile Organic Compounds and Decreasing Agricultural Fire Emissions. <i>Geophysical Research Letters</i> , 2019 , 46, 4468-4475	4.9	37
66	Impact of China's Air Pollution Prevention and Control Action Plan on PM _{2.5} chemical composition over eastern China. <i>Science China Earth Sciences</i> , 2019 , 62, 1872-1884	4.6	55
65	Persistent growth of anthropogenic non-methane volatile organic compound (NMVOC) emissions in China during 1990–2017: drivers, speciation and ozone formation potential. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 8897-8913	6.8	122
64	Committed emissions from existing energy infrastructure jeopardize 1.5 °C climate target. <i>Nature</i> , 2019 , 572, 373-377	50.4	248
63	Exploring 2016–2017 surface ozone pollution over China: source contributions and meteorological influences. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 8339-8361	6.8	127
62	Rapid improvement of PM _{2.5} pollution and associated health benefits in China during 2013–2017. <i>Science China Earth Sciences</i> , 2019 , 62, 1847-1856	4.6	71
61	Air quality and health benefits of China's emission control policies on coal-fired power plants during 2005–2020. <i>Environmental Research Letters</i> , 2019 , 14, 094016	6.2	43
60	Modeling the aging process of black carbon during atmospheric transport using a new approach: a case study in Beijing. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 9663-9680	6.8	10
59	Drivers of improved PM air quality in China from 2013 to 2017. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 24463-24469	11.5	578
58	A two-pollutant strategy for improving ozone and particulate air quality in China. <i>Nature Geoscience</i> , 2019 , 12, 906-910	18.3	223
57	Spatiotemporal continuous estimates of PM concentrations in China, 2000-2016: A machine learning method with inputs from satellites, chemical transport model, and ground observations. <i>Environment International</i> , 2019 , 123, 345-357	12.9	129
56	Anthropogenic drivers of 2013-2017 trends in summer surface ozone in China. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 422-427	11.5	593
55	Underreported coal in statistics: A survey-based solid fuel consumption and emission inventory for the rural residential sector in China. <i>Applied Energy</i> , 2019 , 235, 1169-1182	10.7	50
54	Estimating the Contribution of Local Primary Emissions to Particulate Pollution Using High-Density Station Observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019 , 124, 1648-1661	4.4	41

53	Identifying Ammonia Hotspots in China Using a National Observation Network. <i>Environmental Science & Technology</i> , 2018 , 52, 3926-3934	10.3	102
52	Infrastructure Shapes Differences in the Carbon Intensities of Chinese Cities. <i>Environmental Science & Technology</i> , 2018 , 52, 6032-6041	10.3	25
51	"New" Reactive Nitrogen Chemistry Reshapes the Relationship of Ozone to Its Precursors. <i>Environmental Science & Technology</i> , 2018 , 52, 2810-2818	10.3	30
50	Enhancement of PM2.5 Concentrations by Aerosol-Meteorology Interactions Over China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018 , 123, 1179-1194	4.4	35
49	Targeted emission reductions from global super-polluting power plant units. <i>Nature Sustainability</i> , 2018 , 1, 59-68	22.1	125
48	Nitrate-driven urban haze pollution during summertime over the North China Plain. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 5293-5306	6.8	94
47	Comparison and evaluation of anthropogenic emissions of SO ₂ and NO _x over China. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 3433-3456	6.8	34
46	Reduction in black carbon light absorption due to multi-pollutant emission control during APEC China 2014. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 10275-10287	6.8	14
45	Adjoint inversion of Chinese non-methane volatile organic compound emissions using space-based observations of formaldehyde and glyoxal. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 15017-15046	6.8	29
44	Trends in China's anthropogenic emissions since 2010 as the consequence of clean air actions. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 14095-14111	6.8	865
43	Rapid SO ₂ emission reductions significantly increase tropospheric ammonia concentrations over the North China Plain. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 17933-17943	6.8	74
42	Amplification of light absorption of black carbon associated with air pollution. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 9879-9896	6.8	46
41	Current Emissions and Future Mitigation Pathways of Coal-Fired Power Plants in China from 2010 to 2030. <i>Environmental Science & Technology</i> , 2018 , 52, 12905-12914	10.3	74
40	Sizing of Ambient Particles From a Single-Particle Soot Photometer Measurement to Retrieve Mixing State of Black Carbon at a Regional Site of the North China Plain. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018 , 123, 12,778	4.4	13
39	Contribution of Hydroxymethane Sulfonate to Ambient Particulate Matter: A Potential Explanation for High Particulate Sulfur During Severe Winter Haze in Beijing. <i>Geophysical Research Letters</i> , 2018 , 45, 11,969	4.9	46
38	Historical (1750-2014) anthropogenic emissions of reactive gases and aerosols from the Community Emissions Data System (CEDS). <i>Geoscientific Model Development</i> , 2018 , 11, 369-408	6.3	585
37	Multi-year application of WRF-CAM5 over East Asia-Part I: Comprehensive evaluation and formation regimes of O ₃ and PM _{2.5} . <i>Atmospheric Environment</i> , 2017 , 165, 122-142	5.3	14
36	Transboundary health impacts of transported global air pollution and international trade. <i>Nature</i> , 2017 , 543, 705-709	50.4	501

35	Anthropogenic fugitive, combustion and industrial dust is a significant, underrepresented fine particulate matter source in global atmospheric models. <i>Environmental Research Letters</i> , 2017 , 12, 044018	6.2	54
34	Premature Mortality Attributable to Particulate Matter in China: Source Contributions and Responses to Reductions. <i>Environmental Science & Technology</i> , 2017 , 51, 9950-9959	10.3	116
33	Air quality improvements and health benefits from China's clean air action since 2013. <i>Environmental Research Letters</i> , 2017 , 12, 114020	6.2	156
32	Anthropogenic emission inventories in China: a review. <i>National Science Review</i> , 2017 , 4, 834-866	10.8	253
31	A possible pathway for rapid growth of sulfate during haze days in China. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 3301-3316	6.8	142
30	Widespread and persistent ozone pollution in eastern China during the non-winter season of 2015: observations and source attributions. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 2759-2774	6.8	87
29	Combined impacts of nitrous acid and nitryl chloride on lower-tropospheric ozone: new module development in WRF-Chem and application to China. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 9733-9750	6.8	22
28	Intercomparison of NO _x emission inventories over East Asia. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 10125-10141	6.8	50
27	Impact of spatial proxies on the representation of bottom-up emission inventories: A satellite-based analysis. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 4131-4145	6.8	42
26	Chemical composition of ambient PM _{2.5} over China and relationship to precursor emissions during 2005-2012. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 9187-9203	6.8	58
25	Resolution dependence of uncertainties in gridded emission inventories: a case study in Hebei, China. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 921-933	6.8	57
24	MIX: a mosaic Asian anthropogenic emission inventory under the international collaboration framework of the MICS-Asia and HTAP. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 935-963	6.8	744
23	Multi-year downscaling application of two-way coupled WRF v3.4 and CMAQ v5.0.2 over east Asia for regional climate and air quality modeling: model evaluation and aerosol direct effects. <i>Geoscientific Model Development</i> , 2017 , 10, 2447-2470	6.3	41
22	Application of WRF/Chem over East Asia: Part II. Model improvement and sensitivity simulations. <i>Atmospheric Environment</i> , 2016 , 124, 301-320	5.3	17
21	Application of online-coupled WRF/Chem-MADRID in East Asia: Model evaluation and climatic effects of anthropogenic aerosols. <i>Atmospheric Environment</i> , 2016 , 124, 321-336	5.3	23
20	High-resolution ammonia emissions inventories in China from 1980 to 2012. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 2043-2058	6.8	185
19	Impacts of heterogeneous uptake of dinitrogen pentoxide and chlorine activation on ozone and reactive nitrogen partitioning: improvement and application of the WRF-Chem model in southern China. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 14875-14890	6.8	41
18	Fossil Fuel Combustion-Related Emissions Dominate Atmospheric Ammonia Sources during Severe Haze Episodes: Evidence from (15)N-Stable Isotope in Size-Resolved Aerosol Ammonium. <i>Environmental Science & Technology</i> , 2016 , 50, 8049-56	10.3	189

17	Air pollutant emissions from Chinese households: A major and underappreciated ambient pollution source. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 7756-61	11.5	292
16	Application of Weather Research and Forecasting Model with Chemistry (WRF/Chem) over northern China: Sensitivity study, comparative evaluation, and policy implications. <i>Atmospheric Environment</i> , 2016 , 124, 337-350	5.3	44
15	Measuring the morphology and density of internally mixed black carbon with SP2 and VTDMA: new insight into the absorption enhancement of black carbon in the atmosphere. <i>Atmospheric Measurement Techniques</i> , 2016 , 9, 1833-1843	4	55
14	Potential sources of nitrous acid (HONO) and their impacts on ozone: A WRF-Chem study in a polluted subtropical region. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 3645-3662	4.4	59
13	Reactive nitrogen chemistry in aerosol water as a source of sulfate during haze events in China. <i>Science Advances</i> , 2016 , 2, e1601530	14.3	608
12	Health and climate change: policy responses to protect public health. <i>Lancet, The</i> , 2015 , 386, 1861-914	40	932
11	Revealing the hidden health costs embodied in Chinese exports. <i>Environmental Science & Technology</i> , 2015 , 49, 4381-8	10.3	68
10	Source attribution of particulate matter pollution over North China with the adjoint method. <i>Environmental Research Letters</i> , 2015 , 10, 084011	6.2	92
9	Reduced carbon emission estimates from fossil fuel combustion and cement production in China. <i>Nature</i> , 2015 , 524, 335-8	50.4	804
8	Effects of meteorology and secondary particle formation on visibility during heavy haze events in Beijing, China. <i>Science of the Total Environment</i> , 2015 , 502, 578-84	10.2	228
7	Source contributions of urban PM _{2.5} in the Beijing-Tianjin-Hebei region: Changes between 2006 and 2013 and relative impacts of emissions and meteorology. <i>Atmospheric Environment</i> , 2015 , 123, 229-239	5.3	120
6	Characteristics of heavy aerosol pollution during the 2012-2013 winter in Beijing, China. <i>Atmospheric Environment</i> , 2014 , 88, 83-89	5.3	240
5	China's international trade and air pollution in the United States. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 1736-41	11.5	302
4	Examining air pollution in China using production- and consumption-based emissions accounting approaches. <i>Environmental Science & Technology</i> , 2014 , 48, 14139-47	10.3	93
3	Policy: Cleaning China's air. <i>Nature</i> , 2012 , 484, 161-2	50.4	458
2	Satellite remote sensing of changes in NO _x emissions over China during 1996-2010. <i>Science Bulletin</i> , 2012 , 57, 2857-2864		97
1	Understanding of regional air pollution over China using CMAQ, part I performance evaluation and seasonal variation. <i>Atmospheric Environment</i> , 2010 , 44, 2415-2426	5.3	133