

# Lin Zhang

## List of Publications by Year in Descending Order

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

98  
papers

5,457  
citations

43  
h-index

72  
g-index

101  
ext. papers

7,012  
ext. citations

7.7  
avg, IF

5.64  
L-index

#	Paper	IF	Citations
98	Global Perspective of Drought Impacts on Ozone Pollution Episodes.. <i>Environmental Science &amp; Technology</i> , <b>2022</b> ,	10.3	1
97	Abating ammonia is more cost-effective than nitrogen oxides for mitigating PM air pollution. <i>Science</i> , <b>2021</b> , 374, 758-762	33.3	24
96	Improved Estimates of Ammonia Emissions from Global Croplands. <i>Environmental Science &amp; Technology</i> , <b>2021</b> , 55, 1329-1338	10.3	23
95	Mapping Yearly Fine Resolution Global Surface Ozone through the Bayesian Maximum Entropy Data Fusion of Observations and Model Output for 1990-2017. <i>Environmental Science &amp; Technology</i> , <b>2021</b> , 55, 4389-4398	10.3	13
94	Sensitivities of Ozone Air Pollution in the Beijing-Tianjin-Hebei Area to Local and Upwind Precursor Emissions Using Adjoint Modeling. <i>Environmental Science &amp; Technology</i> , <b>2021</b> , 55, 5752-5762	10.3	10
93	Mapping the drivers of formaldehyde (HCHO) variability from 2015 to 2019 over eastern China: insights from Fourier transform infrared observation and GEOS-Chem model simulation. <i>Atmospheric Chemistry and Physics</i> , <b>2021</b> , 21, 6365-6387	6.8	8
92	Evolution of secondary inorganic aerosols amidst improving PM air quality in the North China plain. <i>Environmental Pollution</i> , <b>2021</b> , 281, 117027	9.3	3
91	The underappreciated role of agricultural soil nitrogen oxide emissions in ozone pollution regulation in North China. <i>Nature Communications</i> , <b>2021</b> , 12, 5021	17.4	17
90	The nonlinear response of fine particulate matter pollution to ammonia emission reductions in North China. <i>Environmental Research Letters</i> , <b>2021</b> ,	6.2	4
89	Dietary shifts can reduce premature deaths related to particulate matter pollution in China. <i>Nature Food</i> , <b>2021</b> , 2, 997-1004	14.4	1
88	Sources of black carbon during severe haze events in the Beijing-Tianjin-Hebei region using the adjoint method. <i>Science of the Total Environment</i> , <b>2020</b> , 740, 140149	10.2	3
87	Implementation of Yale Interactive terrestrial Biosphere model v1.0 into GEOS-Chem v12.0.0: a tool for biosphere-chemistry interactions. <i>Geoscientific Model Development</i> , <b>2020</b> , 13, 1137-1153	6.3	7
86	Beijing Climate Center Earth System Model version 1 (BCC-ESM1): model description and evaluation of aerosol simulations. <i>Geoscientific Model Development</i> , <b>2020</b> , 13, 977-1005	6.3	32
85	Rapid Increases in Warm-Season Surface Ozone and Resulting Health Impact in China Since 2013. <i>Environmental Science and Technology Letters</i> , <b>2020</b> , 7, 240-247	11	102
84	Fourier transform infrared time series of tropospheric HCN in eastern China: seasonality, interannual variability, and source attribution. <i>Atmospheric Chemistry and Physics</i> , <b>2020</b> , 20, 5437-5456	6.8	8
83	Persistent ozone pollution episodes in North China exacerbated by regional transport. <i>Environmental Pollution</i> , <b>2020</b> , 265, 115056	9.3	17
82	Geologic factors leadingly drawing the macroecological pattern of rocky desertification in southwest China. <i>Scientific Reports</i> , <b>2020</b> , 10, 1440	4.9	3

81	Atmospheric reactive nitrogen concentration and deposition trends from 2011 to 2018 at an urban site in north China. <i>Atmospheric Environment</i> , <b>2020</b> , 224, 117298	5.3	1
80	Urban nitrogen budgets: flows and stock changes of potentially polluting nitrogen compounds in cities and their surroundings – a review. <i>Journal of Integrative Environmental Sciences</i> , <b>2020</b> , 17, 57-71	3	1
79	Development of the global atmospheric chemistry general circulation model BCC-GEOS-Chem v1.0: model description and evaluation. <i>Geoscientific Model Development</i> , <b>2020</b> , 13, 3817-3838	6.3	6
78	Modelling Atmospheric Nitrogen Deposition in China <b>2020</b> , 67-85		
77	Precipitation chemistry and atmospheric nitrogen deposition at a rural site in Beijing, China. <i>Atmospheric Environment</i> , <b>2020</b> , 223, 117253	5.3	17
76	Environmental impacts of nitrogen emissions in China and the role of policies in emission reduction. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2020</b> , 378, 20190324	2	16
75	Air quality, nitrogen use efficiency and food security in China are improved by cost-effective agricultural nitrogen management. <i>Nature Food</i> , <b>2020</b> , 1, 648-658	14.4	43
74	Inequality of household consumption and air pollution-related deaths in China. <i>Nature Communications</i> , <b>2019</b> , 10, 4337	17.4	53
73	Heterogeneous sulfate aerosol formation mechanisms during wintertime Chinese haze events: air quality model assessment using observations of sulfate oxygen isotopes in Beijing. <i>Atmospheric Chemistry and Physics</i> , <b>2019</b> , 19, 6107-6123	6.8	82
72	Assessing the Iterative Finite Difference Mass Balance and 4D-Var Methods to Derive Ammonia Emissions Over North America Using Synthetic Observations. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2019</b> , 124, 4222-4236	4.4	8
71	The impact of aerosol-radiation interactions on the effectiveness of emission control measures. <i>Environmental Research Letters</i> , <b>2019</b> , 14, 024002	6.2	14
70	The impacts of economic restructuring and technology upgrade on air quality and human health in Beijing-Tianjin-Hebei region in China. <i>Frontiers of Environmental Science and Engineering</i> , <b>2019</b> , 13, 1	5.8	8
69	A database of atmospheric nitrogen concentration and deposition from the nationwide monitoring network in China. <i>Scientific Data</i> , <b>2019</b> , 6, 51	8.2	26
68	Fast Photochemistry in Wintertime Haze: Consequences for Pollution Mitigation Strategies. <i>Environmental Science &amp; Technology</i> , <b>2019</b> , 53, 10676-10684	10.3	83
67	Meteorology and Climate Influences on Tropospheric Ozone: a Review of Natural Sources, Chemistry, and Transport Patterns. <i>Current Pollution Reports</i> , <b>2019</b> , 5, 238-260	7.6	51
66	High efficiency of livestock ammonia emission controls in alleviating particulate nitrate during a severe winter haze episode in northern China. <i>Atmospheric Chemistry and Physics</i> , <b>2019</b> , 19, 5605-5613	6.8	34
65	The cascade of global trade to large climate forcing over the Tibetan Plateau glaciers. <i>Nature Communications</i> , <b>2019</b> , 10, 3281	17.4	15
64	Exploring 2016-2017 surface ozone pollution over China: source contributions and meteorological influences. <i>Atmospheric Chemistry and Physics</i> , <b>2019</b> , 19, 8339-8361	6.8	127

63	Influences of planetary boundary layer mixing parameterization on summertime surface ozone concentration and dry deposition over North China. <i>Atmospheric Environment</i> , <b>2019</b> , 218, 116950	5.3	9
62	FTIR time series of stratospheric NO over Hefei, China, and comparisons with OMI and GEOS-Chem model data. <i>Optics Express</i> , <b>2019</b> , 27, A1225-A1240	3.3	23
61	Surface and tropospheric ozone trends in the Southern Hemisphere since 1990: possible linkages to poleward expansion of the Hadley circulation. <i>Science Bulletin</i> , <b>2019</b> , 64, 400-409	10.6	25
60	Identifying Ammonia Hotspots in China Using a National Observation Network. <i>Environmental Science &amp; Technology</i> , <b>2018</b> , 52, 3926-3934	10.3	102
59	Lower tropospheric ozone over India and its linkage to the South Asian monsoon. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 3101-3118	6.8	34
58	Agricultural ammonia emissions in China: reconciling bottom-up and top-down estimates. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 339-355	6.8	128
57	Atmospheric nitrogen deposition in the Yangtze River basin: Spatial pattern and source attribution. <i>Environmental Pollution</i> , <b>2018</b> , 232, 546-555	9.3	58
56	Severe Surface Ozone Pollution in China: A Global Perspective. <i>Environmental Science and Technology Letters</i> , <b>2018</b> , 5, 487-494	11	316
55	Tropospheric Ozone Assessment Report: Assessment of global-scale model performance for global and regional ozone distributions, variability, and trends. <i>Elementa</i> , <b>2018</b> , 6,	3.6	121
54	Adjoint inversion of Chinese non-methane volatile organic compound emissions using space-based observations of formaldehyde and glyoxal. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 15017-15046	6.8	29
53	The vertical variability of ammonia in urban Beijing, China. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 16385-16398	6.8	28
52	Rapid SO <sub>2</sub> emission reductions significantly increase tropospheric ammonia concentrations over the North China Plain. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 17933-17943	6.8	74
51	High-resolution inversion of OMI formaldehyde columns to quantify isoprene emission on ecosystem-relevant scales: application to the southeast US. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 5483-5497	6.8	43
50	Spatial-temporal patterns of inorganic nitrogen air concentrations and deposition in eastern China. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 10931-10954	6.8	48
49	Letter to the editor: Critical assessments of the current state of scientific knowledge, terminology, and research needs concerning the ecological effects of elevated atmospheric nitrogen deposition in China. <i>Atmospheric Environment</i> , <b>2017</b> , 153, 109-116	5.3	3
48	Atmospheric nitrogen deposition to China: A model analysis on nitrogen budget and critical load exceedance. <i>Atmospheric Environment</i> , <b>2017</b> , 153, 32-40	5.3	103
47	Atmospheric Nitrogen Emission, Deposition, and Air Quality Impacts in China: an Overview. <i>Current Pollution Reports</i> , <b>2017</b> , 3, 65-77	7.6	43
46	Attribution of PM <sub>2.5</sub> exposure in Beijing-Tianjin-Hebei region to emissions: implication to control strategies. <i>Science Bulletin</i> , <b>2017</b> , 62, 957-964	10.6	37

45	Modelling secondary organic aerosols in China. <i>National Science Review</i> , <b>2017</b> , 4, 806-809	10.8	18
44	Global budget of tropospheric ozone: Evaluating recent model advances with satellite (OMI), aircraft (IAGOS), and ozonesonde observations. <i>Atmospheric Environment</i> , <b>2017</b> , 167, 323-334	5.3	50
43	Potential impacts of urban land expansion on Asian airborne pollutant outflows. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2017</b> , 122, 7646-7663	4.4	11
42	Global O-CO Correlations in a Chemistry and Transport Model During July-August: Evaluation with TES Satellite Observations and Sensitivity to Input Meteorological Data and Emissions. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 8429-8452	6.8	9
41	Effects of atmospheric transport and trade on air pollution mortality in China. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 10367-10381	6.8	43
40	Air quality improvement in a megacity: implications from 2015 Beijing Parade Blue pollution control actions. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 31-46	6.8	61
39	Responses of surface ozone air quality to anthropogenic nitrogen deposition in the Northern Hemisphere. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 9781-9796	6.8	11
38	Spatial and seasonal variations of atmospheric sulfur concentrations and dry deposition at 16 rural and suburban sites in China. <i>Atmospheric Environment</i> , <b>2016</b> , 146, 79-89	5.3	19
37	Sources and Processes Affecting Fine Particulate Matter Pollution over North China: An Adjoint Analysis of the Beijing APEC Period. <i>Environmental Science &amp; Technology</i> , <b>2016</b> , 50, 8731-40	10.3	70
36	Wildfire influences on the variability and trend of summer surface ozone in the mountainous western United States. <i>Atmospheric Chemistry and Physics</i> , <b>2016</b> , 16, 14687-14702	6.8	47
35	Estimating numerical errors due to operator splitting in global atmospheric chemistry models: Transport and chemistry. <i>Journal of Computational Physics</i> , <b>2016</b> , 305, 372-386	4.1	4
34	Impact of the 2011 Southern U.S. Drought on Ground-Level Fine Aerosol Concentration in Summertime*. <i>Journals of the Atmospheric Sciences</i> , <b>2015</b> , 72, 1075-1093	2.1	14
33	Source attribution of particulate matter pollution over North China with the adjoint method. <i>Environmental Research Letters</i> , <b>2015</b> , 10, 084011	6.2	92
32	Atmospheric nitrogen deposition to the northwestern Pacific: seasonal variation and source attribution. <i>Atmospheric Chemistry and Physics</i> , <b>2015</b> , 15, 10905-10924	6.8	41
31	Effects of urban land expansion on the regional meteorology and air quality of eastern China. <i>Atmospheric Chemistry and Physics</i> , <b>2015</b> , 15, 8597-8614	6.8	52
30	Quantifying atmospheric nitrogen deposition through a nationwide monitoring network across China. <i>Atmospheric Chemistry and Physics</i> , <b>2015</b> , 15, 12345-12360	6.8	234
29	Global chemical composition of ambient fine particulate matter for exposure assessment. <i>Environmental Science &amp; Technology</i> , <b>2014</b> , 48, 13060-8	10.3	118
28	Estimating North American background ozone in U.S. surface air with two independent global models: Variability, uncertainties, and recommendations. <i>Atmospheric Environment</i> , <b>2014</b> , 96, 284-300	5.3	75

27	Improved monitoring of surface ozone by joint assimilation of geostationary satellite observations of ozone and CO. <i>Atmospheric Environment</i> , <b>2014</b> , 84, 254-261	5.3	25
26	Tropospheric carbon monoxide over the Pacific during HIPPO: two-way coupled simulation of GEOS-Chem and its multiple nested models. <i>Atmospheric Chemistry and Physics</i> , <b>2014</b> , 14, 12649-12663	6.8	21
25	Sources contributing to background surface ozone in the US Intermountain West. <i>Atmospheric Chemistry and Physics</i> , <b>2014</b> , 14, 5295-5309	6.8	92
24	Constraints on ship NO <sub>x</sub> emissions in Europe using GEOS-Chem and OMI satellite NO <sub>2</sub> observations. <i>Atmospheric Chemistry and Physics</i> , <b>2014</b> , 14, 1353-1369	6.8	75
23	Anthropogenic emissions in Nigeria and implications for atmospheric ozone pollution: A view from space. <i>Atmospheric Environment</i> , <b>2014</b> , 99, 32-40	5.3	55
22	Present and future nitrogen deposition to national parks in the United States: critical load exceedances. <i>Atmospheric Chemistry and Physics</i> , <b>2013</b> , 13, 9083-9095	6.8	75
21	CO emissions in China: Uncertainties and implications of improved energy efficiency and emission control. <i>Atmospheric Environment</i> , <b>2012</b> , 49, 103-113	5.3	71
20	Improving the accuracy of daily satellite-derived ground-level fine aerosol concentration estimates for North America. <i>Environmental Science &amp; Technology</i> , <b>2012</b> , 46, 11971-8	10.3	54
19	Meteorological modes of variability for fine particulate matter (PM <sub>2.5</sub> ) air quality in the United States: implications for PM <sub>2.5</sub> sensitivity to climate change. <i>Atmospheric Chemistry and Physics</i> , <b>2012</b> , 12, 3131-3145	6.8	130
18	Ship-borne FTIR measurements of CO and O <sub>3</sub> in the Western Pacific from 43°N to 35°S: an evaluation of the sources. <i>Atmospheric Chemistry and Physics</i> , <b>2012</b> , 12, 815-828	6.8	16
17	Nitrogen deposition to the United States: distribution, sources, and processes. <i>Atmospheric Chemistry and Physics</i> , <b>2012</b> , 12, 4539-4554	6.8	212
16	Ozone air quality measurement requirements for a geostationary satellite mission. <i>Atmospheric Environment</i> , <b>2011</b> , 45, 7143-7150	5.3	47
15	Improved estimate of the policy-relevant background ozone in the United States using the GEOS-Chem global model with 1/2°/3° horizontal resolution over North America. <i>Atmospheric Environment</i> , <b>2011</b> , 45, 6769-6776	5.3	158
14	Establishing policy relevant background (PRB) ozone concentrations in the United States. <i>Environmental Science &amp; Technology</i> , <b>2011</b> , 45, 9484-97	10.3	57
13	Impact of mineral dust on nitrate, sulfate, and ozone in transpacific Asian pollution plumes. <i>Atmospheric Chemistry and Physics</i> , <b>2010</b> , 10, 3999-4012	6.8	172
12	Global estimates of CO sources with high resolution by adjoint inversion of multiple satellite datasets (MOPITT, AIRS, SCIAMACHY, TES). <i>Atmospheric Chemistry and Physics</i> , <b>2010</b> , 10, 855-876	6.8	241
11	Intercomparison methods for satellite measurements of atmospheric composition: application to tropospheric ozone from TES and OMI. <i>Atmospheric Chemistry and Physics</i> , <b>2010</b> , 10, 4725-4739	6.8	86
10	Intercontinental transport of air pollution. <i>Frontiers of Environmental Science and Engineering in China</i> , <b>2010</b> , 4, 20-29		8

9	Intercontinental source attribution of ozone pollution at western U.S. sites using an adjoint method. <i>Geophysical Research Letters</i> , <b>2009</b> , 36,	4.9	87
8	Analysis of tropical tropospheric ozone, carbon monoxide, and water vapor during the 2006 El Niño using TES observations and the GEOS-Chem model. <i>Journal of Geophysical Research</i> , <b>2009</b> , 114,		78
7	Effects of the 2006 El Niño on tropospheric composition as revealed by data from the Tropospheric Emission Spectrometer (TES). <i>Geophysical Research Letters</i> , <b>2008</b> , 35,	4.9	102
6	Diagnosing recent CO emissions and ozone evolution in East Asia using coordinated surface observations, adjoint inverse modeling, and MOPITT satellite data. <i>Atmospheric Chemistry and Physics</i> , <b>2008</b> , 8, 3867-3880	6.8	42
5	Transpacific transport of ozone pollution and the effect of recent Asian emission increases on air quality in North America: an integrated analysis using satellite, aircraft, ozonesonde, and surface observations. <i>Atmospheric Chemistry and Physics</i> , <b>2008</b> , 8, 6117-6136	6.8	312
4	Implementation of cloud retrievals for Tropospheric Emission Spectrometer (TES) atmospheric retrievals: part 1. Description and characterization of errors on trace gas retrievals. <i>Journal of Geophysical Research</i> , <b>2006</b> , 111,		97
3	Ozone-CO correlations determined by the TES satellite instrument in continental outflow regions. <i>Geophysical Research Letters</i> , <b>2006</b> , 33, n/a-n/a	4.9	75
2	Environmental benefits and household costs of clean heating options in northern China. <i>Nature Sustainability</i> ,	22.1	3
1	Interannual variation of reactive nitrogen emissions and their impacts on PM2.5 air pollution in China during 2005-2015. <i>Environmental Research Letters</i> ,	6.2	3