

# Zifeng Lu

## 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.

88

papers

7,936

citations

39

h-index

89

g-index

94

ext. papers

9,681

ext. citations

8.5

avg, IF

6.02

L-index

#	Paper	IF	Citations
88	Regional Emissions Analysis of Light-Duty Battery Electric Vehicles. <i>Atmosphere</i> , <b>2021</b> , 12, 1482	2.7	1
87	TROPOMI NO in the United States: A Detailed Look at the Annual Averages, Weekly Cycles, Effects of Temperature, and Correlation With Surface NO Concentrations. <i>Earth's Future</i> , <b>2021</b> , 9, e2020EF001665	7.9	17
86	Provincial Greenhouse Gas Emissions of Gasoline and Plug-in Electric Vehicles in China: Comparison from the Consumption-Based Electricity Perspective. <i>Environmental Science &amp; Technology</i> , <b>2021</b> , 55, 6944-6956	10.3	8
85	Taking into account greenhouse gas emissions of electric vehicles for transportation de-carbonization. <i>Energy Policy</i> , <b>2021</b> , 155, 112353	7.2	10
84	A methodology to constrain carbon dioxide emissions from coal-fired power plants using satellite observations of co-emitted nitrogen dioxide. <i>Atmospheric Chemistry and Physics</i> , <b>2020</b> , 20, 99-116	6.8	16
83	Understanding and improving model representation of aerosol optical properties for a Chinese haze event measured during KORUS-AQ. <i>Atmospheric Chemistry and Physics</i> , <b>2020</b> , 20, 6455-6478	6.8	10
82	Carbon footprint of global natural gas supplies to China. <i>Nature Communications</i> , <b>2020</b> , 11, 824	17.4	18
81	Greenhouse gas consequences of the China dual credit policy. <i>Nature Communications</i> , <b>2020</b> , 11, 5212	17.4	23
80	Machine learning model to project the impact of COVID-19 on US motor gasoline demand. <i>Nature Energy</i> , <b>2020</b> , 5, 666-673	62.3	20
79	Natural gas shortages during the "coal-to-gas" transition in China have caused a large redistribution of air pollution in winter 2017. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 31018-31025	11.5	23
78	Disentangling the impact of the COVID-19 lockdowns on urban NO from natural variability. <i>Geophysical Research Letters</i> , <b>2020</b> , 47, e2020GL089269	4.9	88
77	Future private car stock in China: current growth pattern and effects of car sales restriction. <i>Mitigation and Adaptation Strategies for Global Change</i> , <b>2020</b> , 25, 289-306	3.9	6
76	Exploiting OMI NO satellite observations to infer fossil-fuel CO emissions from U.S. megacities. <i>Science of the Total Environment</i> , <b>2019</b> , 695, 133805	10.2	17
75	Five hundred years of anthropogenic mercury: spatial and temporal release profiles. <i>Environmental Research Letters</i> , <b>2019</b> , 14, 084004	6.2	36
74	Criteria Air Pollutant and Greenhouse Gases Emissions from U.S. Refineries Allocated to Refinery Products. <i>Environmental Science &amp; Technology</i> , <b>2019</b> , 53, 6556-6569	10.3	10
73	Criteria Air Pollutants and Greenhouse Gas Emissions from Hydrogen Production in U.S. Steam Methane Reforming Facilities. <i>Environmental Science &amp; Technology</i> , <b>2019</b> , 53, 7103-7113	10.3	26
72	Survival rate of China passenger vehicles: A data-driven approach. <i>Energy Policy</i> , <b>2019</b> , 129, 587-597	7.2	13

71	A top-down assessment using OMI NO <sub>2</sub> suggests an underestimate in the NO <sub>x</sub> emissions inventory in Seoul, South Korea, during KORUS-AQ. <i>Atmospheric Chemistry and Physics</i> , <b>2019</b> , 19, 1801-1818	6.8	40
70	Enhanced Capabilities of TROPOMI NO: Estimating NO from North American Cities and Power Plants. <i>Environmental Science &amp; Technology</i> , <b>2019</b> , 53, 12594-12601	10.3	52
69	Understanding and improving model representation of aerosol optical properties for a Chinese haze event measured during KORUS-AQ <b>2019</b> ,		1
68	Global and regional trends in mercury emissions and concentrations, 2010-2015. <i>Atmospheric Environment</i> , <b>2019</b> , 201, 417-427	5.3	90
67	Analysis of the origins of black carbon and carbon monoxide transported to Beijing, Tianjin, and Hebei in China. <i>Science of the Total Environment</i> , <b>2019</b> , 653, 1364-1376	10.2	10
66	Socioeconomic and atmospheric factors affecting aerosol radiative forcing: Production-based versus consumption-based perspective. <i>Atmospheric Environment</i> , <b>2019</b> , 200, 197-207	5.3	8
65	Using gap-filled MAIAC AOD and WRF-Chem to estimate daily PM <sub>2.5</sub> concentrations at 1 km resolution in the Eastern United States. <i>Atmospheric Environment</i> , <b>2019</b> , 199, 443-452	5.3	38
64	Evaluation of the performance of distributed and centralized biomass technologies in rural China. <i>Renewable Energy</i> , <b>2018</b> , 125, 445-455	8.1	30
63	Impacts of transportation sector emissions on future U.S. air quality in a changing climate. Part I: Projected emissions, simulation design, and model evaluation. <i>Environmental Pollution</i> , <b>2018</b> , 238, 903-917	9.7	22
62	Black carbon emissions from biomass and coal in rural China. <i>Atmospheric Environment</i> , <b>2018</b> , 176, 158-170	5.3	36
61	Targeted emission reductions from global super-polluting power plant units. <i>Nature Sustainability</i> , <b>2018</b> , 1, 59-68	22.1	125
60	Impacts of transportation sector emissions on future U.S. air quality in a changing climate. Part II: Air quality projections and the interplay between emissions and climate change. <i>Environmental Pollution</i> , <b>2018</b> , 238, 918-930	9.3	14
59	Historical releases of mercury to air, land, and water from coal combustion. <i>Science of the Total Environment</i> , <b>2018</b> , 615, 131-140	10.2	69
58	A top-down assessment using OMI NO <sub>2</sub> suggests an underestimate in the NO <sub>x</sub> emissions inventory in Seoul, South Korea during KORUS-AQ <b>2018</b> ,		2
57	Historical (1750-2014) anthropogenic emissions of reactive gases and aerosols from the Community Emissions Data System (CEDS). <i>Geoscientific Model Development</i> , <b>2018</b> , 11, 369-408	6.3	585
56	Total Mercury Released to the Environment by Human Activities. <i>Environmental Science &amp; Technology</i> , <b>2017</b> , 51, 5969-5977	10.3	194
55	Transboundary health impacts of transported global air pollution and international trade. <i>Nature</i> , <b>2017</b> , 543, 705-709	50.4	501
54	The ozone-climate penalty in the Midwestern U.S.. <i>Atmospheric Environment</i> , <b>2017</b> , 170, 130-142	5.3	17

53	Historical (1750–2014) anthropogenic emissions of reactive gases and aerosols from the Community Emission Data System (CEDS) <b>2017</b> ,		15
52	A high-resolution and observationally constrained OMI NO <sub>2</sub> satellite retrieval <b>2017</b> ,		1
51	A high-resolution and observationally constrained OMI NO <sub>2</sub> satellite retrieval. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 11403-11421	6.8	43
50	MIX: a mosaic Asian anthropogenic emission inventory under the international collaboration framework of the MICS-Asia and HTAP. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 935-963	6.8	744
49	Response of winter fine particulate matter concentrations to emission and meteorology changes in North China. <i>Atmospheric Chemistry and Physics</i> , <b>2016</b> , 16, 11837-11851	6.8	40
48	Aura OMI observations of regional SO <sub>2</sub> and NO <sub>2</sub> pollution changes from 2005 to 2015. <i>Atmospheric Chemistry and Physics</i> , <b>2016</b> , 16, 4605-4629	6.8	428
47	Predicting vehicular emissions in high spatial resolution using pervasively measured transportation data and microscopic emissions model. <i>Atmospheric Environment</i> , <b>2016</b> , 140, 352-363	5.3	50
46	Well-to-Wheels Analysis of the Greenhouse Gas Emissions and Energy Use of Vehicles with Gasoline Compression Ignition Engines on Low Octane Gasoline-Like Fuel. <i>SAE International Journal of Fuels and Lubricants</i> , <b>2016</b> , 9, 527-545	1.8	15
45	A space-based, high-resolution view of notable changes in urban NO <sub>x</sub> pollution around the world (2005–2014). <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2016</b> , 121, 976-996	4.4	249
44	Satellite NO retrievals suggest China has exceeded its NO reduction goals from the twelfth Five-Year Plan. <i>Scientific Reports</i> , <b>2016</b> , 6, 35912	4.9	108
43	Impacts of control strategies, the Great Recession and weekday variations on NO <sub>2</sub> columns above North American cities. <i>Atmospheric Environment</i> , <b>2016</b> , 138, 74-86	5.3	33
42	Global climate forcing of aerosols embodied in international trade. <i>Nature Geoscience</i> , <b>2016</b> , 9, 790-794	18.3	57
41	U.S. NO <sub>2</sub> trends (2005–2013): EPA Air Quality System (AQS) data versus improved observations from the Ozone Monitoring Instrument (OMI). <i>Atmospheric Environment</i> , <b>2015</b> , 110, 130-143	5.3	128
40	Estimates of power plant NO <sub>x</sub> emissions and lifetimes from OMI NO <sub>2</sub> satellite retrievals. <i>Atmospheric Environment</i> , <b>2015</b> , 116, 1-11	5.3	78
39	Light absorption properties and radiative effects of primary organic aerosol emissions. <i>Environmental Science &amp; Technology</i> , <b>2015</b> , 49, 4868-77	10.3	119
38	Source sector and region contributions to BC and PM <sub>2.5</sub> in Central Asia. <i>Atmospheric Chemistry and Physics</i> , <b>2015</b> , 15, 1683-1705	6.8	17
37	Sources of black carbon aerosols in South Asia and surrounding regions during the Integrated Campaign for Aerosols, Gases and Radiation Budget (ICARB). <i>Atmospheric Chemistry and Physics</i> , <b>2015</b> , 15, 5415-5428	6.8	39
36	Constraining black carbon aerosol over Asia using OMI aerosol absorption optical depth and the adjoint of GEOS-Chem. <i>Atmospheric Chemistry and Physics</i> , <b>2015</b> , 15, 10281-10308	6.8	33

35	Emissions of nitrogen oxides from US urban areas: estimation from Ozone Monitoring Instrument retrievals for 2005–2014. <i>Atmospheric Chemistry and Physics</i> , <b>2015</b> , 15, 10367-10383	6.8	69
34	Size-resolved global emission inventory of primary particulate matter from energy-related combustion sources. <i>Atmospheric Environment</i> , <b>2015</b> , 107, 137-147	5.3	15
33	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
32	Response of the summertime ground-level ozone trend in the Chicago area to emission controls and temperature changes, 2005–2013. <i>Atmospheric Environment</i> , <b>2014</b> , 99, 630-640	5.3	25
31	Model evaluation of methods for estimating surface emissions and chemical lifetimes from satellite data. <i>Atmospheric Environment</i> , <b>2014</b> , 98, 66-77	5.3	51
30	Fifteen-year global time series of satellite-derived fine particulate matter. <i>Environmental Science &amp; Technology</i> , <b>2014</b> , 48, 11109-18	10.3	193
29	The characteristics of Beijing aerosol during two distinct episodes: impacts of biomass burning and fireworks. <i>Environmental Pollution</i> , <b>2014</b> , 185, 149-57	9.3	65
28	Simulating black carbon and dust and their radiative forcing in seasonal snow: a case study over North China with field campaign measurements. <i>Atmospheric Chemistry and Physics</i> , <b>2014</b> , 14, 11475-11491	6.8	81
27	Mapping Asian anthropogenic emissions of non-methane volatile organic compounds to multiple chemical mechanisms. <i>Atmospheric Chemistry and Physics</i> , <b>2014</b> , 14, 5617-5638	6.8	223
26	A global 3-D CTM evaluation of black carbon in the Tibetan Plateau. <i>Atmospheric Chemistry and Physics</i> , <b>2014</b> , 14, 7091-7112	6.8	39
25	Global emission projections for the transportation sector using dynamic technology modeling. <i>Atmospheric Chemistry and Physics</i> , <b>2014</b> , 14, 5709-5733	6.8	37
24	Climate impacts of changing aerosol emissions since 1996. <i>Geophysical Research Letters</i> , <b>2014</b> , 41, 4711-4718	4.9	26
23	Emissions estimation from satellite retrievals: A review of current capability. <i>Atmospheric Environment</i> , <b>2013</b> , 77, 1011-1042	5.3	270
22	Source forensics of black carbon aerosols from China. <i>Environmental Science &amp; Technology</i> , <b>2013</b> , 47, 9102-8	10.3	119
21	The observed response of Ozone Monitoring Instrument (OMI) NO <sub>2</sub> columns to NO <sub>x</sub> emission controls on power plants in the United States: 2005–2011. <i>Atmospheric Environment</i> , <b>2013</b> , 81, 102-111	5.3	76
20	Ozone monitoring instrument observations of interannual increases in SO <sub>2</sub> emissions from Indian coal-fired power plants during 2005-2012. <i>Environmental Science &amp; Technology</i> , <b>2013</b> , 47, 13993-4000	10.3	88
19	Radiative forcing due to major aerosol emitting sectors in China and India. <i>Geophysical Research Letters</i> , <b>2013</b> , 40, 4409-4414	4.9	22
18	Sectoral and geographical contributions to summertime continental United States (CONUS) black carbon spatial distributions. <i>Atmospheric Environment</i> , <b>2012</b> , 51, 165-174	5.3	8

17	Increase in NO <sub>x</sub> emissions from Indian thermal power plants during 1996-2010: unit-based inventories and multisatellite observations. <i>Environmental Science &amp; Technology</i> , <b>2012</b> , 46, 7463-70	10.3	100
16	A novel back-trajectory analysis of the origin of black carbon transported to the Himalayas and Tibetan Plateau during 1996-2010. <i>Geophysical Research Letters</i> , <b>2012</b> , 39, n/a-n/a	4.9	97
15	Growth in NO <sub>x</sub> emissions from power plants in China: bottom-up estimates and satellite observations. <i>Atmospheric Chemistry and Physics</i> , <b>2012</b> , 12, 4429-4447	6.8	139
14	Reduction of aerosol absorption in Beijing since 2007 from MODIS and AERONET. <i>Geophysical Research Letters</i> , <b>2011</b> , 38, n/a-n/a	4.9	24
13	Sulfur dioxide and primary carbonaceous aerosol emissions in China and India, 1996-2010. <i>Atmospheric Chemistry and Physics</i> , <b>2011</b> , 11, 9839-9864	6.8	594
12	Sources, distribution, and acidity of sulfate-ammonium aerosol in the Arctic in winter-spring. <i>Atmospheric Environment</i> , <b>2011</b> , 45, 7301-7318	5.3	170
11	All-time releases of mercury to the atmosphere from human activities. <i>Environmental Science &amp; Technology</i> , <b>2011</b> , 45, 10485-91	10.3	342
10	Satellite detection and model verification of NO <sub>x</sub> emissions from power plants in Northern China. <i>Environmental Research Letters</i> , <b>2010</b> , 5, 044007	6.2	30
9	Sulfur dioxide emissions in China and sulfur trends in East Asia since 2000. <i>Atmospheric Chemistry and Physics</i> , <b>2010</b> , 10, 6311-6331	6.8	439
8	Effect of high concentrations of inorganic seed aerosols on secondary organic aerosol formation in the m-xylene/NO <sub>x</sub> photooxidation system. <i>Atmospheric Environment</i> , <b>2009</b> , 43, 897-904	5.3	29
7	Effect of Highly Concentrated Dry (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> Seed Aerosols on Ozone and Secondary Organic Aerosol Formation in Aromatic Hydrocarbon/NO <sub>x</sub> Photooxidation Systems. <i>ACS Symposium Series</i> , <b>2009</b> , 111-126	0.4	
6	The compaction of soot particles generated by spark discharge in the propene ozonolysis system. <i>Journal of Aerosol Science</i> , <b>2008</b> , 39, 897-903	4.3	10
5	Construction and characterization of an atmospheric simulation smog chamber. <i>Advances in Atmospheric Sciences</i> , <b>2007</b> , 24, 250-258	2.9	29
4	China Vehicle Fleet Model: Estimation of Vehicle Stocks, Usage, Emissions, and Energy Use - Model Description, Technical Documentation, and User Guide		4
3	Urban NO <sub>x</sub> emissions around the world declined faster than anticipated between 2005 and 2019. <i>Environmental Research Letters</i> ,	6.2	5
2	Disentangling the impact of the COVID-19 lockdowns on urban NO <sub>2</sub> from natural variability		6
1	TROPOMI NO <sub>2</sub> in the United States: A detailed look at the annual averages, weekly cycles, effects of temperature, and correlation with PM <sub>2.5</sub>		6