Zifeng Lu

List of Publications by Year
in descending order

84 papers	11,190 citations	44069 48 h-index	56724 83 g-index
94 all docs	94 docs citations	94 times ranked	11130 citing authors

#	Article	IF	Citations
1	MIX: a mosaic Asian anthropogenic emission inventory under the international collaboration framework of the MICS-Asia and HTAP. Atmospheric Chemistry and Physics, 2017, 17, 935-963.	4.9	1,069
2	Historical (1750â€“2014) anthropogenic emissions of reactive gases and aerosols from the Community Emissions Data System (CEDS). Geoscientific Model Development, 2018, 11, 369-408.	3.6	1,058
3	Transboundary health impacts of transported global air pollution and international trade. Nature, 2017, 543, 705-709.	27.8	737
4	Sulfur dioxide and primary carbonaceous aerosol emissions in China and India, 1996â€“2010. Atmospheric Chemistry and Physics, 2011, 11, 9839-9864.	4.9	668
5	Aura OMI observations of regional SO₂ and NO₂ pollution changes from 2005 to 2015. Atmospheric Chemistry and Physics, 2016, 16, 4605-4629.	4.9	521
6	Sulfur dioxide emissions in China and sulfur trends in East Asia since 2000. Atmospheric Chemistry and Physics, 2010, 10, 6311-6331.	4.9	516
7	All-Time Releases of Mercury to the Atmosphere from Human Activities. Environmental Science & Technology, 2011, 45, 10485-10491.	10.0	434
8	Emissions estimation from satellite retrievals: A review of current capability. Atmospheric Environment, 2013, 77, 1011-1042.	4.1	323
9	A spaceâ€based, highâ€resolution view of notable changes in urban NO_x pollution around the world (2005â€“2014). Journal of Geophysical Research D: Atmospheres, 2016, 121, 976-996.	3.3	322
10	Total Mercury Released to the Environment by Human Activities. Environmental Science & Technology, 2017, 51, 5969-5977.	10.0	304
11	Mapping Asian anthropogenic emissions of non-methane volatile organic compounds to multiple chemical mechanisms. Atmospheric Chemistry and Physics, 2014, 14, 5617-5638.	4.9	292
12	Fifteen-Year Global Time Series of Satellite-Derived Fine Particulate Matter. Environmental Science & Technology, 2014, 48, 11109-11118.	10.0	233
13	Targeted emission reductions from global super-polluting power plant units. Nature Sustainability, 2018, 1, 59-68.	23.7	215
14	Sources, distribution, and acidity of sulfateâ€“ammonium aerosol in the Arctic in winterâ€“spring. Atmospheric Environment, 2011, 45, 7301-7318.	4.1	206
15	Global Chemical Composition of Ambient Fine Particulate Matter for Exposure Assessment. Environmental Science & Technology, 2014, 48, 13060-13068.	10.0	164
16	U.S. NO2 trends (2005â€“2013): EPA Air Quality System (AQS) data versus improved observations from the Ozone Monitoring Instrument (OMI). Atmospheric Environment, 2015, 110, 130-143.	4.1	162
17	Growth in NO_x emissions from power plants in China: bottom-up estimates and satellite observations. Atmospheric Chemistry and Physics, 2012, 12, 4429-4447.	4.9	158
18	Light Absorption Properties and Radiative Effects of Primary Organic Aerosol Emissions. Environmental Science & Technology, 2015, 49, 4868-4877.	10.0	156

#	Article	IF	Citations
19	Global and regional trends in mercury emissions and concentrations, 2010â€“2015. Atmospheric Environment, 2019, 201, 417-427.	4.1	154
20	Disentangling the Impact of the COVIDâ€19 Lockdowns on Urban NO₂ From Natural Variability. Geophysical Research Letters, 2020, 47, e2020GL089269.	4.0	144
21	Source Forensics of Black Carbon Aerosols from China. Environmental Science & Technology, 2013, 47, 9102-9108.	10.0	143
22	Satellite NO2 retrievals suggest China has exceeded its NOx reduction goals from the twelfth Five-Year Plan. Scientific Reports, 2016, 6, 35912.	3.3	126
23	Increase in NO_{<i>x</i>} Emissions from Indian Thermal Power Plants during 1996â€“2010: Unit-Based Inventories and Multisatellite Observations. Environmental Science & Technology, 2012, 46, 7463-7470.	10.0	117
24	A novel backâ€trajectory analysis of the origin of black carbon transported to the Himalayas and Tibetan Plateau during 1996â€“2010. Geophysical Research Letters, 2012, 39, .	4.0	117
25	Simulating black carbon and dust and their radiative forcing in seasonal snow: a case study over North China with field campaign measurements. Atmospheric Chemistry and Physics, 2014, 14, 11475-11491.	4.9	115
26	Ozone Monitoring Instrument Observations of Interannual Increases in SO₂ Emissions from Indian Coal-Fired Power Plants during 2005â€“2012. Environmental Science & Technology, 2013, 47, 13993-14000.	10.0	113
27	Estimates of power plant NOx emissions and lifetimes from OMI NO2 satellite retrievals. Atmospheric Environment, 2015, 116, 1-11.	4.1	108
28	Enhanced Capabilities of TROPOMI NO₂: Estimating NO_{<i>X</i>} from North American Cities and Power Plants. Environmental Science & Technology, 2019, 53, 12594-12601.	10.0	103
29	The observed response of Ozone Monitoring Instrument (OMI) NO2 columns to NOx emission controls on power plants in the United States: 2005â€“2011. Atmospheric Environment, 2013, 81, 102-111.	4.1	99
30	Emissions of nitrogen oxides from US urban areas: estimation from Ozone Monitoring Instrument retrievals for 2005â€“2014. Atmospheric Chemistry and Physics, 2015, 15, 10367-10383.	4.9	94
31	Historical releases of mercury to air, land, and water from coal combustion. Science of the Total Environment, 2018, 615, 131-140.	8.0	90
32	Criteria Air Pollutants and Greenhouse Gas Emissions from Hydrogen Production in U.S. Steam Methane Reforming Facilities. Environmental Science & Technology, 2019, 53, 7103-7113.	10.0	86
33	Predicting vehicular emissions in high spatial resolution using pervasively measured transportation data and microscopic emissions model. Atmospheric Environment, 2016, 140, 352-363.	4.1	82
34	The characteristics of Beijing aerosol during two distinct episodes: Impacts of biomass burning and fireworks. Environmental Pollution, 2014, 185, 149-157.	7.5	80
35	Five hundred years of anthropogenic mercury: spatial and temporal release profiles*. Environmental Research Letters, 2019, 14, 084004.	5.2	80
36	Global climate forcing of aerosols embodied in international trade. Nature Geoscience, 2016, 9, 790-794.	12.9	79

#	Article	IF	Citations
37	Model evaluation of methods for estimating surface emissions and chemical lifetimes from satellite data. Atmospheric Environment, 2014, 98, 66-77.	4.1	75
38	A top-down assessment using OMI NO₂ suggests an underestimate in the NO_{<i>x</i>} emissions inventory in Seoul, South Korea, during KORUS-AQ. Atmospheric Chemistry and Physics, 2019, 19, 1801-1818.	4.9	68
39	Using gap-filled MAIAC AOD and WRF-Chem to estimate daily PM2.5 concentrations at 1â€¯km resolution in the Eastern United States. Atmospheric Environment, 2019, 199, 443-452.	4.1	68
40	TROPOMI NO₂ in the United States: A Detailed Look at the Annual Averages, Weekly Cycles, Effects of Temperature, and Correlation With Surface NO₂ Concentrations. Earth's Future, 2021, 9, e2020EF001665.	6.3	66
41	A high-resolution and observationally constrained OMI NO₂ satellite retrieval. Atmospheric Chemistry and Physics, 2017, 17, 11403-11421.	4.9	58
42	Greenhouse gas consequences of the China dual credit policy. Nature Communications, 2020, 11, 5212.	12.8	57
43	Machine learning model to project the impact of COVID-19 on US motor gasoline demand. Nature Energy, 2020, 5, 666-673.	39.5	56
44	Natural gas shortages during the â€œcoal-to-gasâ€• transition in China have caused a large redistribution of air pollution in winter 2017. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31018-31025.	7.1	56
45	Response of winter fine particulate matter concentrations to emission and meteorology changes in North China. Atmospheric Chemistry and Physics, 2016, 16, 11837-11851.	4.9	54
46	Carbon footprint of global natural gas supplies to China. Nature Communications, 2020, 11, 824.	12.8	54
47	Black carbon emissions from biomass and coal in rural China. Atmospheric Environment, 2018, 176, 158-170.	4.1	53
48	Global emission projections for the transportation sector using dynamic technology modeling. Atmospheric Chemistry and Physics, 2014, 14, 5709-5733.	4.9	52
49	A global 3-D CTM evaluation of black carbon in the Tibetan Plateau. Atmospheric Chemistry and Physics, 2014, 14, 7091-7112.	4.9	48
50	Sources of black carbon aerosols in South Asia and surrounding regions during the Integrated Campaign for Aerosols, Gases and Radiation Budget (ICARB). Atmospheric Chemistry and Physics, 2015, 15, 5415-5428.	4.9	48
51	Construction and characterization of an atmospheric simulation smog chamber. Advances in Atmospheric Sciences, 2007, 24, 250-258.	4.3	45
52	Impacts of control strategies, the Great Recession and weekday variations on NO 2 columns above North American cities. Atmospheric Environment, 2016, 138, 74-86.	4.1	44
53	A methodology to constrain carbon dioxide emissions from coal-fired power plants using satellite observations of co-emitted nitrogen dioxide. Atmospheric Chemistry and Physics, 2020, 20, 99-116.	4.9	40
54	Constraining black carbon aerosol over Asia using OMI aerosol absorption optical depth and the adjoint of GEOS-Chem. Atmospheric Chemistry and Physics, 2015, 15, 10281-10308.	4.9	39

#	Article	IF	Citations
55	Effect of high concentrations of inorganic seed aerosols on secondary organic aerosol formation in the m-xylene/NOx photooxidation system. Atmospheric Environment, 2009, 43, 897-904.	4.1	38
56	Evaluation of the performance of distributed and centralized biomass technologies in rural China. Renewable Energy, 2018, 125, 445-455.	8.9	38
57	Provincial Greenhouse Gas Emissions of Gasoline and Plug-in Electric Vehicles in China: Comparison from the Consumption-Based Electricity Perspective. Environmental Science & Technology, 2021, 55, 6944-6956.	10.0	38
58	Exploiting OMI NO2 satellite observations to infer fossil-fuel CO2 emissions from U.S. megacities. Science of the Total Environment, 2019, 695, 133805.	8.0	37
59	Survival rate of China passenger vehicles: A data-driven approach. Energy Policy, 2019, 129, 587-597.	8.8	37
60	Impacts of transportation sector emissions on future U.S. air quality in a changing climate. Part I: Projected emissions, simulation design, and model evaluation. Environmental Pollution, 2018, 238, 903-917.	7.5	34
61	Satellite detection and model verification of NO _{<i>x</i>} emissions from power plants in Northern China. Environmental Research Letters, 2010, 5, 044007.	5.2	33
62	Taking into account greenhouse gas emissions of electric vehicles for transportation de-carbonization. Energy Policy, 2021, 155, 112353.	8.8	31
63	Climate impacts of changing aerosol emissions since 1996. Geophysical Research Letters, 2014, 41, 4711-4718.	4.0	30
64	Reduction of aerosol absorption in Beijing since 2007 from MODIS and AERONET. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	27
65	Response of the summertime ground-level ozone trend in the Chicago area to emission controls and temperature changes, 2005â€“2013. Atmospheric Environment, 2014, 99, 630-640.	4.1	26
66	Radiative forcing due to major aerosol emitting sectors in China and India. Geophysical Research Letters, 2013, 40, 4409-4414.	4.0	25
67	Criteria Air Pollutant and Greenhouse Gases Emissions from U.S. Refineries Allocated to Refinery Products. Environmental Science & Technology, 2019, 53, 6556-6569.	10.0	25
68	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. Environmental Pollution, 2018, 238, 918-930.	7.5	24
69	Future private car stock in China: current growth pattern and effects of car sales restriction. Mitigation and Adaptation Strategies for Global Change, 2020, 25, 289-306.	2.1	23
70	The ozone-climate penalty in the Midwestern U.S.. Atmospheric Environment, 2017, 170, 130-142.	4.1	22
71	Source sector and region contributions to BC and PM_{2.5} in Central Asia. Atmospheric Chemistry and Physics, 2015, 15, 1683-1705.	4.9	18
72	Size-resolved global emission inventory of primary particulate matter from energy-related combustion sources. Atmospheric Environment, 2015, 107, 137-147.	4.1	18

#	ARTICLE	IF	CITATIONS
73	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. SAE International Journal of Fuels and Lubricants, 0, 9, 527-545.	0.2	18
74	Understanding and improving model representation of aerosol optical properties for a Chinese haze event measured during KORUS-AQ. Atmospheric Chemistry and Physics, 2020, 20, 6455-6478.	4.9	18
75	Urban NO _x emissions around the world declined faster than anticipated between 2005 and 2019. Environmental Research Letters, 2021, 16, 115004.	5.2	17
76	The compaction of soot particles generated by spark discharge in the propene ozonolysis system. Journal of Aerosol Science, 2008, 39, 897-903.	3.8	14
77	Analysis of the origins of black carbon and carbon monoxide transported to Beijing, Tianjin, and Hebei in China. Science of the Total Environment, 2019, 653, 1364-1376.	8.0	14
78	Greenhouse gas emissions from the global transportation of crude oil: Current status and mitigation potential. Journal of Industrial Ecology, 2022, 26, 2045-2056.	5.5	14
79	Socioeconomic and atmospheric factors affecting aerosol radiative forcing: Production-based versus consumption-based perspective. Atmospheric Environment, 2019, 200, 197-207.	4.1	12
80	Sectoral and geographical contributions to summertime continental United States (CONUS) black carbon spatial distributions. Atmospheric Environment, 2012, 51, 165-174.	4.1	10
81	Regional Emissions Analysis of Light-Duty Battery Electric Vehicles. Atmosphere, 2021, 12, 1482.	2.3	9
82	Diesel passenger vehicle shares influenced COVID-19 changes in urban nitrogen dioxide pollution. Environmental Research Letters, 2022, 17, 074010.	5.2	2
83	Effect of Highly Concentrated Dry (NH4)2SO4 Seed Aerosols on Ozone and Secondary Organic Aerosol Formation in Aromatic Hydrocarbon/NOx Photooxidation Systems. ACS Symposium Series, 2009, , 111-126.	0.5	1
84	Effects of Inorganic Seeds on Secondary Organic Aerosol (SOA) Formation. , 2012, , .		0