

Lei Zhu

List of Publications by Citations

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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.

49
papers

1,785
citations

20
h-index

42
g-index

65
ext. papers

2,268
ext. citations

7
avg, IF

4.18
L-index

#	Paper	IF	Citations
49	Why do Models Overestimate Surface Ozone in the Southeastern United States?. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 13561-13577	6.8	239
48	Aqueous-phase mechanism for secondary organic aerosol formation from isoprene: application to the Southeast United States and co-benefit of SO emission controls. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 1603-1618	6.8	197
47	Sources, seasonality, and trends of southeast US aerosol: an integrated analysis of surface, aircraft, and satellite observations with the GEOS-Chem chemical transport model. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 10411-10433	6.8	168
46	Organic nitrate chemistry and its implications for nitrogen budgets in an isoprene- and monoterpene-rich atmosphere: constraints from aircraft (SEACRS) and ground-based (SOAS) observations in the Southeast US. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 5969-5991	6.8	129
45	The role of chlorine in global tropospheric chemistry. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 3981-4003	6.8	96
44	Transport pathways and potential sources of PM10 in Beijing. <i>Atmospheric Environment</i> , 2011 , 45, 594-604	6.3	84
43	Formaldehyde (HCHO) As a Hazardous Air Pollutant: Mapping Surface Air Concentrations from Satellite and Inferring Cancer Risks in the United States. <i>Environmental Science & Technology</i> , 2017 , 51, 5650-5657	10.3	80
42	Observing atmospheric formaldehyde (HCHO) from space: validation and intercomparison of six retrievals from four satellites (OMI, GOME2A, GOME2B, OMPS) with SEACRS aircraft observations over the Southeast US. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 13477-13490	6.8	75
41	Anthropogenic emissions of highly reactive volatile organic compounds in eastern Texas inferred from oversampling of satellite (OMI) measurements of HCHO columns. <i>Environmental Research Letters</i> , 2014 , 9, 114004	6.2	72
40	Analysis of the transport pathways and potential sources of PM10 in Shanghai based on three methods. <i>Science of the Total Environment</i> , 2012 , 414, 525-34	10.2	71
39	Mercury emissions from biomass burning in China. <i>Environmental Science & Technology</i> , 2011 , 45, 9442-8	10.3	66
38	Possible heterogeneous chemistry of hydroxymethanesulfonate (HMS) in northern China winter haze. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 1357-1371	6.8	63
37	Glyoxal yield from isoprene oxidation and relation to formaldehyde: chemical mechanism, constraints from SENEX aircraft observations, and interpretation of OMI satellite data. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 8725-8738	6.8	56
36	Sensitivity to grid resolution in the ability of a chemical transport model to simulate observed oxidant chemistry under high-isoprene conditions. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 4369-4378	6.8	45
35	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> , 2018 , 18, 5483-5497	6.8	43
34	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
33	Long-term (2005-2014) trends in formaldehyde (HCHO) columns across North America as seen by the OMI satellite instrument: Evidence of changing emissions of volatile organic compounds. <i>Geophysical Research Letters</i> , 2017 , 44, 7079-7086	4.9	36

32	A physics-based approach to oversample multi-satellite, multispecies observations to a common grid. <i>Atmospheric Measurement Techniques</i> , 2018 , 11, 6679-6701	4	31
31	A new emission inventory for nonagricultural open fires in Asia from 2000 to 2009. <i>Environmental Research Letters</i> , 2010 , 5, 014014	6.2	23
30	Effect of sea salt aerosol on tropospheric bromine chemistry. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 6497-6507	6.8	22
29	Satellite-Observed Changes in Mexico@ Offshore Gas Flaring Activity Linked to Oil/Gas Regulations. <i>Geophysical Research Letters</i> , 2019 , 46, 1879-1888	4.9	19
28	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
27	Global Significant Changes in Formaldehyde (HCHO) Columns Observed From Space at the Early Stage of the COVID-19 Pandemic. <i>Geophysical Research Letters</i> , 2021 , 48, 2e020GL091265	4.9	13
26	Validation of satellite formaldehyde (HCHO) retrievals using observations from 12 aircraft campaigns. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 12329-12345	6.8	10
25	Sensitivities of Ozone Air Pollution in the Beijing-Tianjin-Hebei Area to Local and Upwind Precursor Emissions Using Adjoint Modeling. <i>Environmental Science & Technology</i> , 2021 , 55, 5752-5762	10.3	10
24	NO _x emissions, isoprene oxidation pathways, vertical mixing, and implications for surface ozone in the Southeast United States 2016 ,		8
23	TEMPO Green Paper: Chemistry, physics, and meteorology experiments with the Tropospheric Emissions: monitoring of pollution instrument 2019 ,		8
22	Impacts of Chemical Degradation on the Global Budget of Atmospheric Levoglucosan and Its Use As a Biomass Burning Tracer. <i>Environmental Science & Technology</i> , 2021 , 55, 5525-5536	10.3	8
21	Global tropospheric halogen (Cl, Br, I) chemistry and its impact on oxidants. <i>Atmospheric Chemistry and Physics</i> , 2021 , 21, 13973-13996	6.8	7
20	Direct links between hygroscopicity and mixing state of ambient aerosols: estimating particle hygroscopicity from their single-particle mass spectra. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 6273-6290	6.8	6
19	Aqueous-phase mechanism for secondary organic aerosol formation from isoprene: application to the Southeast United States and co-benefit of SO ₂ emission controls		6
18	Development of the global atmospheric chemistry general circulation model BCC-GEOS-Chem v1.0: model description and evaluation. <i>Geoscientific Model Development</i> , 2020 , 13, 3817-3838	6.3	6
17	Observing atmospheric formaldehyde (HCHO) from space: validation and intercomparison of six retrievals from four satellites (OMI, GOME2A, GOME2B, OMPS) with SEAC ⁴ RS aircraft observations over the Southeast US 2016 ,		6
16	Validation of satellite formaldehyde (HCHO) retrievals using observations from 12 aircraft campaigns		3
15	Organic nitrate chemistry and its implications for nitrogen budgets in an isoprene- and monoterpene-rich atmosphere: constraints from aircraft (SEAC ⁴ RS) and ground-based (SOAS) observations in the Southeast US 2016 ,		3

14	Glyoxal yield from isoprene oxidation and relation to formaldehyde: chemical mechanism, constraints from SENEX aircraft observations, and interpretation of OMI satellite data 2016 ,		3
13	Sensitivity to grid resolution in the ability of a chemical transport model to simulate observed oxidant chemistry under high-isoprene conditions 2016 ,		2
12	Development of the global atmospheric general circulation-chemistry model BCC-GEOS-Chem v1.0: model description and evaluation		2
11	Global tropospheric halogen (Cl, Br, I) chemistry and its impact on oxidants		2
10	Anthropogenic Impacts on Tropospheric Reactive Chlorine Since the Preindustrial. <i>Geophysical Research Letters</i> , 2021 , 48, e2021GL093808	4-9	2
9	Possible heterogeneous hydroxymethanesulfonate (HMS) chemistry in northern China winter haze and implications for rapid sulfate formation 2018 ,		2
8	UK Ammonia Emissions Estimated With Satellite Observations and GEOS-Chem. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021 , 126, e2021JD035237	4-4	2
7	Efficient Atmospheric Transport of Microplastics over Asia and Adjacent Oceans.. <i>Environmental Science & Technology</i> , 2022 , 56, 6243-6252	10-3	2
6	High-resolution inversion of OMI formaldehyde columns to quantify isoprene emission on ecosystem-relevant scales: application to the Southeast US 2017 ,		1
5	Role of Organic and Conservation Agriculture in Ammonia Emissions and Crop Productivity in China.. <i>Environmental Science & Technology</i> , 2022 ,	10-3	1
4	The role of chlorine in tropospheric chemistry 2018 ,		1
3	Effect of sea-salt aerosol on tropospheric bromine chemistry 2018 ,		1
2	Source and variability of formaldehyde (HCHO) at northern high latitudes: an integrated satellite, aircraft, and model study. <i>Atmospheric Chemistry and Physics</i> , 2022 , 22, 7163-7178	6-8	1
1	Improved ozone simulation in East Asia via assimilating observations from the first geostationary air-quality monitoring satellite: Insights from an Observing System Simulation Experiment. <i>Atmospheric Environment</i> , 2022 , 274, 119003	5-3	0