Pengfei Liu

List of Publications by Year
in descending order

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52 papers	2,636 citations	218592 26 h-index	197736 49 g-index

72 all docs	72 docs citations	72 times ranked	3125 citing authors

#	Article	IF	Citations
1	Urban Air Pollution May Enhance COVID-19 Case-Fatality and Mortality Rates in the United States. Innovation(China), 2020, 1, 100047.	5.2	177
2	Fast sulfate formation from oxidation of SO2 by NO2 and HONO observed in Beijing haze. Nature Communications, 2020, 11, 2844.	5.8	161
3	Long-term effects of PM2Â·5 on neurological disorders in the American Medicare population: a longitudinal cohort study. Lancet Planetary Health, The, 2020, 4, e557-e565.	5.1	151
4	Impacts of temperature and its variability on mortality in New England. Nature Climate Change, 2015, 5, 988-991.	8.1	146
5	Ultraviolet and visible complex refractive indices of secondary organic material produced by photooxidation of the aromatic compounds toluene and <i>m</i>-xylene. Atmospheric Chemistry and Physics, 2015, 15, 1435-1446.	1.9	121
6	Changing shapes and implied viscosities of suspended submicron particles. Atmospheric Chemistry and Physics, 2015, 15, 7819-7829.	1.9	106
7	Relative humidity-dependent viscosities of isoprene-derived secondary organic material and atmospheric implications for isoprene-dominant forests. Atmospheric Chemistry and Physics, 2015, 15, 5145-5159.	1.9	100
8	Sub-micrometre particulate matter is primarily in liquid form over Amazon rainforest. Nature Geoscience, 2016, 9, 34-37.	5.4	99
9	Relative humidity-dependent viscosity of secondary organic material from toluene photo-oxidation and possible implications for organic particulate matter over megacities. Atmospheric Chemistry and Physics, 2016, 16, 8817-8830.	1.9	95
10	Enhanced aerosol particle growth sustained by high continental chlorine emission in India. Nature Geoscience, 2021, 14, 77-84.	5.4	94
11	Lability of secondary organic particulate matter. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12643-12648.	3.3	93
12	Observations and implications of liquidâ€“liquid phase separation at high relative humidities in secondary organic material produced by <i>Î±</i>-pinene ozonolysis without inorganic salts. Atmospheric Chemistry and Physics, 2016, 16, 7969-7979.	1.9	93
13	High H₂O₂ Concentrations Observed during Haze Periods during the Winter in Beijing: Importance of H₂O₂ Oxidation in Sulfate Formation. Environmental Science and Technology Letters, 2018, 5, 757-763.	3.9	91
14	Complex Refractive Indices of Thin Films of Secondary Organic Materials by Spectroscopic Ellipsometry from 220 to 1200 nm. Environmental Science & Technology, 2013, 47, 13594-13601.	4.6	85
15	Resolving the mechanisms of hygroscopic growth and cloud condensation nuclei activity for organic particulate matter. Nature Communications, 2018, 9, 4076.	5.8	84
16	Aqueous production of secondary organic aerosol from fossil-fuel emissions in winter Beijing haze. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	75
17	Chemical Reactivity and Liquid/Nonliquid States of Secondary Organic Material. Environmental Science & Technology, 2015, 49, 13264-13274.	4.6	74
18	Highly Viscous States Affect the Browning of Atmospheric Organic Particulate Matter. ACS Central Science, 2018, 4, 207-215.	5.3	60

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19	Estimating daily air temperature across the Southeastern United States using high-resolution satellite data: A statistical modeling study. Environmental Research, 2016, 146, 51-58.	3.7	58
20	Thermodynamic Modeling Suggests Declines in Water Uptake and Acidity of Inorganic Aerosols in Beijing Winter Haze Events during 2014/2015â€“2018/2019. Environmental Science and Technology Letters, 2019, 6, 752-760.	3.9	56
21	The possible contribution of the periodic emissions from farmers' activities in the North China Plain to atmospheric water-soluble ions in Beijing. Atmospheric Chemistry and Physics, 2016, 16, 10097-10109.	1.9	47
22	Liquidâ€“liquid phase separation in particles containing secondary organic material free of inorganic salts. Atmospheric Chemistry and Physics, 2017, 17, 11261-11271.	1.9	45
23	Cloud Activation Potentials for Atmospheric Î±-Pinene and Î²-Caryophyllene Ozonolysis Products. ACS Central Science, 2017, 3, 715-725.	5.3	40
24	The impact of aerosol hygroscopic growth on the single-scattering albedo and its application on the NO₂ photolysis rate coefficient. Atmospheric Chemistry and Physics, 2014, 14, 12055-12067.	1.9	34
25	Chronic effects of temperature on mortality in the Southeastern USA using satellite-based exposure metrics. Scientific Reports, 2016, 6, 30161.	1.6	33
26	Trends and spatial shifts in lightning fires and smoke concentrations in response to 21st century climate over the national forests and parks of the western United States. Atmospheric Chemistry and Physics, 2020, 20, 8827-8838.	1.9	32
27	Long-Term Exposure to Low-Level NO2 and Mortality among the Elderly Population in the Southeastern United States. Environmental Health Perspectives, 2021, 129, 127009.	2.8	26
28	Particle-Phase Photoreactions of HULIS and TMIs Establish a Strong Source of H₂O₂ and Particulate Sulfate in the Winter North China Plain. Environmental Science & Technology, 2021, 55, 7818-7830.	4.6	24
29	Ammonium nitrate promotes sulfate formation through uptake kinetic regime. Atmospheric Chemistry and Physics, 2021, 21, 13269-13286.	1.9	24
30	Improved estimates of preindustrial biomass burning reduce the magnitude of aerosol climate forcing in the Southern Hemisphere. Science Advances, 2021, 7, .	4.7	22
31	Ammonium Chloride Associated Aerosol Liquid Water Enhances Haze in Delhi, India. Environmental Science & Technology, 2022, 56, 7163-7173.	4.6	21
32	Hemispheric black carbon increase after the 13th-century MÄori arrival in New Zealand. Nature, 2021, 598, 82-85.	13.7	20
33	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. Atmospheric Chemistry and Physics, 2021, 21, 16775-16791.	1.9	18
34	Global modeling of heterogeneous hydroxymethanesulfonate chemistry. Atmospheric Chemistry and Physics, 2021, 21, 457-481.	1.9	17
35	Quantifying the Role of the Relative Humidity-Dependent Physical State of Organic Particulate Matter in the Uptake of Semivolatile Organic Molecules. Environmental Science & Technology, 2019, 53, 13209-13218.	4.6	16
36	Humidity Dependence of the Condensational Growth of Î±-Pinene Secondary Organic Aerosol Particles. Environmental Science & Technology, 2021, 55, 14360-14369.	4.6	15

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37	Global Emissions of Hydrogen Chloride and Particulate Chloride from Continental Sources. Environmental Science & Technology, 2022, 56, 3894-3904.	4.6	15
38	Significant contrasts in aerosol acidity between China and the United States. Atmospheric Chemistry and Physics, 2021, 21, 8341-8356.	1.9	13
39	Chemical Characterization and Source Apportionment of Organic Aerosols in the Coastal City of Chennai, India: Impact of Marine Air Masses on Aerosol Chemical Composition and Potential for Secondary Organic Aerosol Formation. ACS Earth and Space Chemistry, 2021, 5, 3197-3209.	1.2	12
40	Influence of Particle Physical State on the Uptake of Medium-Sized Organic Molecules. Environmental Science & Technology, 2018, 52, 8381-8389.	4.6	11
41	The Reactivity of Toluene-Derived Secondary Organic Material with Ammonia and the Influence of Water Vapor. Journal of Physical Chemistry A, 2018, 122, 7739-7747.	1.1	10
42	A novel clean combustion technology for solid fuels to efficiently reduce gaseous and particulate emissions. Journal of Cleaner Production, 2021, 320, 128864.	4.6	9
43	Anthropogenic Impacts on Tropospheric Reactive Chlorine Since the Preindustrial. Geophysical Research Letters, 2021, 48, e2021GL093808.	1.5	8
44	Photochemical Aging of Atmospheric Fine Particles as a Potential Source for Gas-Phase Hydrogen Peroxide. Environmental Science & Technology, 2021, 55, 15063-15071.	4.6	8
45	Assessing the Nonlinear Effect of Atmospheric Variables on Primary and Oxygenated Organic Aerosol Concentration Using Machine Learning. ACS Earth and Space Chemistry, 2022, 6, 1059-1066.	1.2	8
46	Fine particle pH and its influencing factors during summer at Mt. Tai: Comparison between mountain and urban sites. Atmospheric Environment, 2021, 261, 118607.	1.9	7
47	Stable Iron Isotopic Signature Reveals Multiple Sources of Magnetic Particulate Matter in the 2021 Beijing Sandstorms. Environmental Science and Technology Letters, 2022, 9, 299-305.	3.9	7
48	Effect of Different Combustion Processes on Atmospheric Nitrous Acid Formation Mechanisms: A Winter Comparative Observation in Urban, Suburban and Rural Areas of the North China Plain. Environmental Science & Technology, 2022, 56, 4828-4837.	4.6	6
49	Synergistic Uptake by Acidic Sulfate Particles of Gaseous Mixtures of Glyoxal and Pinanediol. Environmental Science & Technology, 2020, 54, 11762-11770.	4.6	5
50	Complex Interplay Between Organic and Secondary Inorganic Aerosols With Ambient Relative Humidity Implicates the Aerosol Liquid Water Content Over India During Wintertime. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	5
51	Production and Measurement of Organic Particulate Matter in a Flow Tube Reactor. Journal of Visualized Experiments, 2018, , .	0.2	4
52	Influence of Particle Surface Area Concentration on the Production of Organic Particulate Matter in a Continuously Mixed Flow Reactor. Environmental Science & Technology, 2019, 53, 4968-4976.	4.6	4