Weiwei Hu

List of Publications by Year
in descending order

82 papers	5,386 citations	94433 37 h-index	91884 69 g-index
151 all docs	151 docs citations	151 times ranked	4212 citing authors

#	Article	IF	Citations
1	Highly functionalized organic nitrates in the southeast United States: Contribution to secondary organic aerosol and reactive nitrogen budgets. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1516-1521.	7.1	269
2	Chemical composition, sources, and aging process of submicron aerosols in Beijing: Contrast between summer and winter. Journal of Geophysical Research D: Atmospheres, 2016, 121, 1955-1977.	3.3	259
3	Aqueous-phase mechanism for secondary organic aerosol formation from isoprene: application to the southeast United States and co-benefit of SO₂ emission controls. Atmospheric Chemistry and Physics, 2016, 16, 1603-1618.	4.9	257
4	Organic aerosol composition and sources in Pasadena, California, during the 2010 CalNex campaign. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9233-9257.	3.3	231
5	VOC emissions, evolutions and contributions to SOA formation at a receptor site in eastern China. Atmospheric Chemistry and Physics, 2013, 13, 8815-8832.	4.9	220
6	Biomass burning dominates brown carbon absorption in the rural southeastern United States. Geophysical Research Letters, 2015, 42, 653-664.	4.0	212
7	On the implications of aerosol liquid water and phase separation for organic aerosol mass. Atmospheric Chemistry and Physics, 2017, 17, 343-369.	4.9	189
8	Monoterpenes are the largest source of summertime organic aerosol in the southeastern United States. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2038-2043.	7.1	186
9	Characterization of a real-time tracer for isoprene epoxydiols-derived secondary organic aerosol (IEPOX-SOA) from aerosol mass spectrometer measurements. Atmospheric Chemistry and Physics, 2015, 15, 11807-11833.	4.9	185
10	Airborne measurements of western U.S. wildfire emissions: Comparison with prescribed burning and air quality implications. Journal of Geophysical Research D: Atmospheres, 2017, 122, 6108-6129.	3.3	184
11	Organic nitrate chemistry and its implications for nitrogen budgets in an isoprene- and monoterpene-rich atmosphere: constraints from aircraft (SEAC⁴RS) and ground-based (SOAS) observations in the Southeast US. Atmospheric Chemistry and Physics, 2016, 16, 5969-5991.	4.9	173
12	Formation of Low Volatility Organic Compounds and Secondary Organic Aerosol from Isoprene Hydroxyhydroperoxide Low-NO Oxidation. Environmental Science & Technology, 2015, 49, 10330-10339.	10.0	172
13	Insights on organic aerosol aging and the influence of coal combustion at a regional receptor site of central eastern China. Atmospheric Chemistry and Physics, 2013, 13, 10095-10112.	4.9	145
14	Molecular Composition and Volatility of Organic Aerosol in the Southeastern U.S.: Implications for IEPOX Derived SOA. Environmental Science & Technology, 2016, 50, 2200-2209.	10.0	141
15	Real-time measurements of secondary organic aerosol formation and aging from ambient air in an oxidation flow reactor in the Los Angeles area. Atmospheric Chemistry and Physics, 2016, 16, 7411-7433.	4.9	137
16	Modeling the Radical Chemistry in an Oxidation Flow Reactor: Radical Formation and Recycling, Sensitivities, and the OH Exposure Estimation Equation. Journal of Physical Chemistry A, 2015, 119, 4418-4432.	2.5	126
17	Non-OH chemistry in oxidation flow reactors for the study of atmospheric chemistry systematically examined by modeling. Atmospheric Chemistry and Physics, 2016, 16, 4283-4305.	4.9	117
18	Impact of Thermal Decomposition on Thermal Desorption Instruments: Advantage of Thermogram Analysis for Quantifying Volatility Distributions of Organic Species. Environmental Science & Technology, 2017, 51, 8491-8500.	10.0	117

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19	Increasing Isoprene Epoxydiol-to-Inorganic Sulfate Aerosol Ratio Results in Extensive Conversion of Inorganic Sulfate to Organosulfur Forms: Implications for Aerosol Physicochemical Properties. Environmental Science & Technology, 2019, 53, 8682-8694.	10.0	111
20	Airborne measurements of organosulfates over the continental U.S.. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2990-3005.	3.3	96
21	Volatility and lifetime against OH heterogeneous reaction of ambient isoprene-epoxydiols-derived secondary organic aerosol (IEPOX-SOA). Atmospheric Chemistry and Physics, 2016, 16, 11563-11580.	4.9	82
22	Microphysical explanation of the RHâ€dependent water affinity of biogenic organic aerosol and its importance for climate. Geophysical Research Letters, 2017, 44, 5167-5177.	4.0	74
23	Ambient Gas-Particle Partitioning of Tracers for Biogenic Oxidation. Environmental Science & Technology, 2016, 50, 9952-9962.	10.0	69
24	The characteristics and origins of carbonaceous aerosol at a rural site of PRD in summer of 2006. Atmospheric Chemistry and Physics, 2012, 12, 1811-1822.	4.9	65
25	Phase state of ambient aerosol linked with water uptake and chemical aging in the southeastern US. Atmospheric Chemistry and Physics, 2016, 16, 11163-11176.	4.9	64
26	Evaluation of the new capture vaporizer for aerosol mass spectrometers (AMS) through field studies of inorganic species. Aerosol Science and Technology, 2017, 51, 735-754.	3.1	63
27	Secondary organic aerosol formation from ambient air in an oxidation flow reactor in central Amazonia. Atmospheric Chemistry and Physics, 2018, 18, 467-493.	4.9	63
28	Secondary organic aerosols from anthropogenic volatile organic compounds contribute substantially to air pollution mortality. Atmospheric Chemistry and Physics, 2021, 21, 11201-11224.	4.9	60
29	Functional Group Composition of Secondary Organic Aerosol Formed from Ozonolysis of Î±-Pinene Under High VOC and Autoxidation Conditions. ACS Earth and Space Chemistry, 2018, 2, 1196-1210.	2.7	58
30	Observations of sesquiterpenes and their oxidation products in central Amazonia during the wet and dry seasons. Atmospheric Chemistry and Physics, 2018, 18, 10433-10457.	4.9	53
31	Evaluation of the new capture vapourizer for aerosol mass spectrometers (AMS) through laboratory studies of inorganic species. Atmospheric Measurement Techniques, 2017, 10, 2897-2921.	3.1	51
32	Measurement report: Important contributions of oxygenated compounds to emissions and chemistry of volatile organic compounds in urban air. Atmospheric Chemistry and Physics, 2020, 20, 14769-14785.	4.9	50
33	Laboratory evaluation of species-dependent relative ionization efficiencies in the Aerodyne Aerosol Mass Spectrometer. Aerosol Science and Technology, 2018, 52, 626-641.	3.1	49
34	Characterization of submicron aerosols influenced by biomass burning at a site in the Sichuan Basin, southwestern China. Atmospheric Chemistry and Physics, 2016, 16, 13213-13230.	4.9	46
35	Influence of urban pollution on the production of organic particulate matter from isoprene epoxydiols in central Amazonia. Atmospheric Chemistry and Physics, 2017, 17, 6611-6629.	4.9	45
36	Aerosol Phase State and Its Link to Chemical Composition and Liquid Water Content in a Subtropical Coastal Megacity. Environmental Science & Technology, 2019, 53, 5027-5033.	10.0	43

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37	Organosulfates in aerosols downwind of an urban region in central Amazon. Environmental Sciences: Processes and Impacts, 2018, 20, 1546-1558.	3.5	40
38	Field intercomparison of the gas/particle partitioning of oxygenated organics during the Southern Oxidant and Aerosol Study (SOAS) in 2013. Aerosol Science and Technology, 2017, 51, 30-56.	3.1	39
39	Chemical characterization of oxygenated organic compounds in the gas phase and particle phase using iodide CIMS with FIGAERO in urban air. Atmospheric Chemistry and Physics, 2021, 21, 8455-8478.	4.9	35
40	Contrasting sources and processes of particulate species in haze days with low and high relative humidity in wintertime Beijing. Atmospheric Chemistry and Physics, 2020, 20, 9101-9114.	4.9	34
41	Characterization of anthropogenic organic aerosols by TOF-ACSM with the new capture vaporizer. Atmospheric Measurement Techniques, 2020, 13, 2457-2472.	3.1	33
42	Characterization of submicron particles by time-of-flight aerosol chemical speciation monitor (ToF-ACSM) during wintertime: aerosol composition, sources, and chemical processes in Guangzhou, China. Atmospheric Chemistry and Physics, 2020, 20, 7595-7615.	4.9	33
43	Chemical transport models often underestimate inorganic aerosol acidity in remote regions of the atmosphere. Communications Earth & Environment, 2021, 2, .	6.8	32
44	Urban influence on the concentration and composition of submicron particulate matter in central Amazonia. Atmospheric Chemistry and Physics, 2018, 18, 12185-12206.	4.9	30
45	The formation and mitigation of nitrate pollution: comparison between urban and suburban environments. Atmospheric Chemistry and Physics, 2022, 22, 4539-4556.	4.9	27
46	Model Evaluation of New Techniques for Maintaining High-NO Conditions in Oxidation Flow Reactors for the Study of OH-Initiated Atmospheric Chemistry. ACS Earth and Space Chemistry, 2018, 2, 72-86.	2.7	26
47	Chemical nature and sources of fine particles in urban Beijing: Seasonality and formation mechanisms. Environment International, 2020, 140, 105732.	10.0	26
48	Evaluation of the new capture vaporizer for aerosol mass spectrometers: Characterization of organic aerosol mass spectra. Aerosol Science and Technology, 2018, 52, 725-739.	3.1	25
49	Realâ€Time Characterization of Aerosol Compositions, Sources, and Aging Processes in Guangzhou During PRIDEâ€GBA 2018 Campaign. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035114.	3.3	25
50	Evaluation of the New Capture Vaporizer for Aerosol Mass Spectrometers (AMS): Elemental Composition and Source Apportionment of Organic Aerosols (OA). ACS Earth and Space Chemistry, 2018, 2, 410-421.	2.7	24
51	Measurements of higher alkanes using NO⁺ chemical ionization in PTR-ToF-MS: important contributions of higher alkanes to secondary organic aerosols in China. Atmospheric Chemistry and Physics, 2020, 20, 14123-14138.	4.9	24
52	Direct observations indicate photodegradable oxygenated volatile organic compounds (OVOCs) as larger contributors to radicals and ozone production in the atmosphere. Atmospheric Chemistry and Physics, 2022, 22, 4117-4128.	4.9	24
53	Measurement report: Emissions of intermediate-volatility organic compounds from vehicles under real-world driving conditions in an urban tunnel. Atmospheric Chemistry and Physics, 2021, 21, 10005-10013.	4.9	23
54	A simplified parameterization of isoprene-epoxydiol-derived secondary organic aerosol (IEPOX-SOA) for global chemistry and climate models: a case study with GEOS-Chem v11-02-rc. Geoscientific Model Development, 2019, 12, 2983-3000.	3.6	22

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55	Natural and Anthropogenically Influenced Isoprene Oxidation in Southeastern United States and Central Amazon. Environmental Science & Technology, 2020, 54, 5980-5991.	10.0	22
56	Observations of sesquiterpenes and their oxidation products in central Amazonia during the wet and dry seasons. Atmospheric Chemistry and Physics, 2018, 18, 10433-10457.	4.9	22
57	Oxidation Flow Reactor Results in a Chinese Megacity Emphasize the Important Contribution of S/IVOCs to Ambient SOA Formation. Environmental Science & Technology, 2022, 56, 6880-6893.	10.0	21
58	The identification of source regions of black carbon at a receptor site off the eastern coast of China. Atmospheric Environment, 2015, 100, 78-84.	4.1	20
59	High Concentrations of Atmospheric Isocyanic Acid (HNCO) Produced from Secondary Sources in China. Environmental Science & Technology, 2020, 54, 11818-11826.	10.0	20
60	Resolving Ambient Organic Aerosol Formation and Aging Pathways with Simultaneous Molecular Composition and Volatility Observations. ACS Earth and Space Chemistry, 2020, 4, 391-402.	2.7	19
61	Evolution of secondary inorganic and organic aerosols during transport: A case study at a regional receptor site. Environmental Pollution, 2016, 218, 794-803.	7.5	18
62	Future changes in isoprene-epoxydiol-derived secondary organic aerosol (IEPOX SOA) under the Shared Socioeconomic Pathways: the importance of physicochemical dependency. Atmospheric Chemistry and Physics, 2021, 21, 3395-3425.	4.9	16
63	Contrasting Reactive Organic Carbon Observations in the Southeast United States (SOAS) and Southern California (CalNex). Environmental Science & Technology, 2020, 54, 14923-14935.	10.0	15
64	A review of measurement techniques for aerosol effective density. Science of the Total Environment, 2021, 778, 146248.	8.0	15
65	Black Carbon Involved Photochemistry Enhances the Formation of Sulfate in the Ambient Atmosphere: Evidence From In Situ Individual Particle Investigation. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035226.	3.3	15
66	A systematic re-evaluation of methods for quantification of bulk particle-phase organic nitrates using real-time aerosol mass spectrometry. Atmospheric Measurement Techniques, 2022, 15, 459-483.	3.1	15
67	Long-term observational constraints of organic aerosol dependence on inorganic species in the southeast US. Atmospheric Chemistry and Physics, 2020, 20, 13091-13107.	4.9	14
68	Tropospheric aerosol hygroscopicity in China. Atmospheric Chemistry and Physics, 2020, 20, 13877-13903.	4.9	14
69	Variations in physicochemical properties of airborne particles during a heavy haze-to-dust episode in Beijing. Science of the Total Environment, 2021, 762, 143081.	8.0	12
70	Budget of nitrous acid (HONO) at an urban site in the fall season of Guangzhou, China. Atmospheric Chemistry and Physics, 2022, 22, 8951-8971.	4.9	12
71	Biogenic emissions and landâ€“atmosphere interactions as drivers of the daytime evolution of secondary organic aerosol in the southeastern US. Atmospheric Chemistry and Physics, 2019, 19, 701-729.	4.9	11
72	Importance of biogenic volatile organic compounds to acyl peroxy nitrates (APN) production in the southeastern US during SOAS 2013. Atmospheric Chemistry and Physics, 2019, 19, 1867-1880.	4.9	10

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73	Ambient Quantification and Size Distributions for Organic Aerosol in Aerosol Mass Spectrometers with the New Capture Vaporizer. ACS Earth and Space Chemistry, 2020, 4, 676-689.	2.7	10
74	Contrasting effects of secondary organic aerosol formations on organic aerosol hygroscopicity. Atmospheric Chemistry and Physics, 2021, 21, 10375-10391.	4.9	10
75	Comprehensive Source Apportionment of Submicron Aerosol in Shijiazhuang, China: Secondary Aerosol Formation and Holiday Effects. ACS Earth and Space Chemistry, 2020, 4, 947-957.	2.7	9
76	Research on Secondary Organic Aerosols Basing on Field Measurement. Acta Chimica Sinica, 2014, 72, 145.	1.4	7
77	Laser Ablation-Aerosol Mass Spectrometry-Chemical Ionization Mass Spectrometry for Ambient Surface Imaging. Analytical Chemistry, 2018, 90, 4046-4053.	6.5	6
78	Interferences with aerosol acidity quantification due to gas-phase ammonia uptake onto acidic sulfate filter samples. Atmospheric Measurement Techniques, 2020, 13, 6193-6213.	3.1	6
79	Evolution of light absorption properties during photochemical aging of straw open burning aerosols. Science of the Total Environment, 2022, 838, 156431.	8.0	4
80	Chemical composition and sources of amines in PM2.5 in an urban site of PRD, China. Environmental Research, 2022, 212, 113261.	7.5	3
81	The impact of chlorine chemistry combined with heterogeneous N₂O₅ reactions on air quality in China. Atmospheric Chemistry and Physics, 2022, 22, 3743-3762.	4.9	2
82	Measurement report: Distinct size dependence and diurnal variation in organic aerosol hygroscopicity, volatility, and cloud condensation nuclei activity at a rural site in the Pearl River Delta (PRD) region, China. Atmospheric Chemistry and Physics, 2022, 22, 8117-8136.	4.9	2