

# Yuan Wang

## List of Publications by Year in descending order

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109  
papers

10,179  
citations

71102

41  
h-index

36028

97  
g-index

131  
all docs

131  
docs citations

131  
times ranked

10272  
citing authors

#	ARTICLE	IF	CITATIONS
1	Health risk and disease burden attributable to long-term global fine-mode particles. <i>Chemosphere</i> , 2022, 287, 132435.	8.2	44
2	Environmental effects on aerosol–cloud interaction in non-precipitating marine boundary layer (MBL) clouds over the eastern North Atlantic. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 335-354.	4.9	11
3	Dual-field-of-view high-spectral-resolution lidar: Simultaneous profiling of aerosol and water cloud to study aerosol–cloud interaction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2110756119.	7.1	15
4	Secondary organic aerosol formation from photooxidation of C <sub>3</sub> H <sub>6</sub> under the presence of NH <sub>3</sub> : Effects of seed particles. <i>Environmental Research</i> , 2022, 211, 113064.	7.5	5
5	Formation, radiative forcing, and climatic effects of severe regional haze. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 4951-4967.	4.9	5
6	Influences of an entrainment–mixing parameterization on numerical simulations of cumulus and stratocumulus clouds. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 5459-5475.	4.9	15
7	The Hunga Tonga–Hunga Ha'apai Hydration of the Stratosphere. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	89
8	Insights into particulate matter pollution in the North China Plain during wintertime: local contribution or regional transport?. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 2229-2249.	4.9	16
9	Unexpected Oligomerization of Small $\alpha$ -Dicarbonyls for Secondary Organic Aerosol and Brown Carbon Formation. <i>Environmental Science &amp; Technology</i> , 2021, 55, 4430-4439.	10.0	31
10	New Observational Constraints on Warm Rain Processes and Their Climate Implications. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091836.	4.0	6
11	The Role of Primary Emission and Transboundary Transport in the Air Quality Changes During and After the COVID-19 Lockdown in China. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091065.	4.0	42
12	A new CCN activation parameterization and its potential influences on aerosol indirect effects. <i>Atmospheric Research</i> , 2021, 253, 105491.	4.1	12
13	Estimating daily full-coverage near surface O <sub>3</sub> , CO, and NO <sub>2</sub> concentrations at a high spatial resolution over China based on S5P-TROPOMI and GEOS-FP. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2021, 175, 311-325.	11.1	57
14	Multigeneration Production of Secondary Organic Aerosol from Toluene Photooxidation. <i>Environmental Science &amp; Technology</i> , 2021, 55, 8592-8603.	10.0	29
15	From COVID-19 to future electrification: Assessing traffic impacts on air quality by a machine-learning model. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	50
16	Global air quality change during COVID-19: a synthetic analysis of satellite, reanalysis and ground station data. <i>Environmental Research Letters</i> , 2021, 16, 074052.	5.2	11
17	Observational study of the physical and chemical characteristics of the winter radiation fog in the tropical rainforest in Xishuangbanna, China. <i>Science China Earth Sciences</i> , 2021, 64, 1982-1995.	5.2	7
18	Analyzing the Contribution of Human Mobility to Changes in Air Pollutants: Insights from the COVID-19 Lockdown in Wuhan. <i>ISPRS International Journal of Geo-Information</i> , 2021, 10, 836.	2.9	0

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19	Effects of Cloud Liquidâ€Phase Microphysical Processes in Mixedâ€Phase Cumuli Over the Tibetan Plateau. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD033371.	3.3	18
20	Near-real-time monitoring of global CO2 emissions reveals the effects of the COVID-19 pandemic. <i>Nature Communications</i> , 2020, 11, 5172.	12.8	420
21	Determinant Role of Aerosols From Industrial Sources in Hurricane Harvey's Catastrophe. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090014.	4.0	7
22	Retrieval of Iceâ€Overâ€Water Cloud Microphysical and Optical Properties Using Passive Radiometers. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088941.	4.0	12
23	Evaluation of Cloud Microphysical Properties Derived From MODIS and Himawariâ€8 Using In Situ Aircraft Measurements Over the Southern Ocean. <i>Earth and Space Science</i> , 2020, 7, e2020EA001137.	2.6	14
24	Spatiotemporal Variations of Precipitation in China Using Surface Gauge Observations from 1961 to 2016. <i>Atmosphere</i> , 2020, 11, 303.	2.3	41
25	Identifying airborne transmission as the dominant route for the spread of COVID-19. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 14857-14863.	7.1	956
26	Carbenium ion-mediated oligomerization of methylglyoxal for secondary organic aerosol formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 13294-13299.	7.1	28
27	Unexpected air pollution with marked emission reductions during the COVID-19 outbreak in China. <i>Science</i> , 2020, 369, 702-706.	12.6	563
28	Investigation of aerosolâ€cloud interactions under different absorptive aerosol regimes using Atmospheric Radiation Measurement (ARM) southern Great Plains (SGP) ground-based measurements. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 3483-3501.	4.9	18
29	Impact of Cloud Ice Particle Size Uncertainty in a Climate Model and Implications for Future Satellite Missions. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD032119.	3.3	7
30	Remarkable nucleation and growth of ultrafine particles from vehicular exhaust. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 3427-3432.	7.1	122
31	An unexpected catalyst dominates formation and radiative forcing of regional haze. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 3960-3966.	7.1	132
32	Investigating multiple aerosol optical depth products from MODIS and VIIRS over Asia: Evaluation, comparison, and merging. <i>Atmospheric Environment</i> , 2020, 230, 117548.	4.1	20
33	Reconciling Contrasting Relationships Between Relative Dispersion and Volumeâ€Mean Radius of Cloud Droplet Size Distributions. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031868.	3.3	22
34	Aerosolâ€photolysis interaction reduces particulate matter during wintertime haze events. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 9755-9761.	7.1	57
35	Quantifying Longâ€Term Seasonal and Regional Impacts of North American Fire Activity on Continental Boundary Layer Aerosols and Cloud Condensation Nuclei. <i>Earth and Space Science</i> , 2020, 7, e2020EA001113.	2.6	1
36	Reduced European aerosol emissions suppress winter extremes over northern Eurasia. <i>Nature Climate Change</i> , 2020, 10, 225-230.	18.8	29

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37	Air quality impact of the Northern California Camp Fire of November 2018. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 14597-14616.	4.9	17
38	Impacts of long-range transport of aerosols on marine-boundary-layer clouds in the eastern North Atlantic. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 14741-14755.	4.9	21
39	Relationships Between Tropical Ascent and High Cloud Fraction Changes With Warming Revealed by Perturbation Physics Experiments in CAM5. <i>Geophysical Research Letters</i> , 2019, 46, 10112-10121.	4.0	11
40	Interaction between succinic acid and sulfuric acidâ€‘base clusters. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 8003-8019.	4.9	33
41	The climatology and trend of black carbon in China from 12-year ground observations. <i>Climate Dynamics</i> , 2019, 53, 5881-5892.	3.8	40
42	Ice nucleation by aerosols from anthropogenic pollution. <i>Nature Geoscience</i> , 2019, 12, 602-607.	12.9	62
43	East Asian Study of Tropospheric Aerosols and their Impact on Regional Clouds, Precipitation, and Climate (EASTâ€‘AIR<sub>CPC</sub>). <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 13026-13054.	3.3	175
44	Inducing Factors and Impacts of the October 2017 California Wildfires. <i>Earth and Space Science</i> , 2019, 6, 1480-1488.	2.6	10
45	Interpretation of the Top-of-Atmosphere Energy Flux for Future Arctic Warming. <i>Scientific Reports</i> , 2019, 9, 13059.	3.3	6
46	Non-Monotonic Aerosol Effect on Precipitation in Convective Clouds over Tropical Oceans. <i>Scientific Reports</i> , 2019, 9, 7809.	3.3	29
47	An Observational Study on Cloud Spectral Width in North China. <i>Atmosphere</i> , 2019, 10, 109.	2.3	11
48	Modeling Study of the Air Quality Impact of Recordâ€‘Breaking Southern California Wildfires in December 2017. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 6554-6570.	3.3	19
49	Impacts of household sources on air pollution at village and regional scales in India. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 7719-7742.	4.9	30
50	Observation and Simulation Studies of Three Types of Wire Icing. <i>Atmosphere</i> , 2019, 10, 234.	2.3	5
51	Optical Properties and Radiative Forcing of Aged BC due to Hygroscopic Growth: Effects of the Aggregate Structure. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 4620-4633.	3.3	27
52	A New Method for Distinguishing Unactivated Particles in Cloud Condensation Nuclei Measurements: Implications for Aerosol Indirect Effect Evaluation. <i>Geophysical Research Letters</i> , 2019, 46, 14185-14194.	4.0	18
53	Estimating the Contribution of Local Primary Emissions to Particulate Pollution Using Highâ€‘Density Station Observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 1648-1661.	3.3	59
54	Declining diurnal temperature range in the North China Plain related to environmental changes. <i>Climate Dynamics</i> , 2019, 52, 6109-6119.	3.8	33

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55	Formation and Optical Properties of Brown Carbon from Small $\alpha$ -Dicarbonyls and Amines. <i>Environmental Science &amp; Technology</i> , 2019, 53, 117-126.	10.0	62
56	Climate Impacts of the Biomass Burning in Indochina on Atmospheric Conditions over Southern China. <i>Aerosol and Air Quality Research</i> , 2019, 9, 2707-2720.	2.1	9
57	Year-long simulation of gaseous and particulate air pollutants in India. <i>Atmospheric Environment</i> , 2018, 180, 244-255.	4.1	89
58	Aerosol microphysical and radiative effects on continental cloud ensembles. <i>Advances in Atmospheric Sciences</i> , 2018, 35, 234-247.	4.3	24
59	Application and Evaluation of an Explicit Prognostic Cloud-Cover Scheme in GRAPES Global Forecast System. <i>Journal of Advances in Modeling Earth Systems</i> , 2018, 10, 652-667.	3.8	46
60	Elucidating the Role of Anthropogenic Aerosols in Arctic Sea Ice Variations. <i>Journal of Climate</i> , 2018, 31, 99-114.	3.2	27
61	Source contributions and potential reductions to health effects of particulate matter in India. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 15219-15229.	4.9	51
62	Change in household fuels dominates the decrease in PM $<sub>2.5</sub>$ exposure and premature mortality in China in 2005-2015. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 12401-12406.	7.1	262
63	Increased Frequency of Extreme Tropical Deep Convection: AIRS Observations and Climate Model Predictions. <i>Geophysical Research Letters</i> , 2018, 45, 13,530.	4.0	27
64	Contrasting effects on deep convective clouds by different types of aerosols. <i>Nature Communications</i> , 2018, 9, 3874.	12.8	96
65	Constraining Aging Processes of Black Carbon in the Community Atmosphere Model Using Environmental Chamber Measurements. <i>Journal of Advances in Modeling Earth Systems</i> , 2018, 10, 2514-2526.	3.8	43
66	Enlarging Rainfall Area of Tropical Cyclones by Atmospheric Aerosols. <i>Geophysical Research Letters</i> , 2018, 45, 8604-8611.	4.0	94
67	Particle acidity and sulfate production during severe haze events in China cannot be reliably inferred by assuming a mixture of inorganic salts. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 10123-10132.	4.9	90
68	Impacts of Saharan Dust on Atlantic Regional Climate and Implications for Tropical Cyclones. <i>Journal of Climate</i> , 2018, 31, 7621-7644.	3.2	30
69	Type-Dependent Responses of Ice Cloud Properties to Aerosols From Satellite Retrievals. <i>Geophysical Research Letters</i> , 2018, 45, 3297-3306.	4.0	33
70	Radiative absorption enhancement of dust mixed with anthropogenic pollution over East Asia. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 7815-7825.	4.9	52
71	Coordination and supramolecular assemblies of mono-hydroxylated octamethylcucurbit[6]uril with alkali and alkaline earth metal ions in the presence of polychloride cadmium anions. <i>CrystEngComm</i> , 2017, 19, 4017-4024.	2.6	15
72	Overview of Persistent Haze Events in China. , 2017, , 3-25.		1

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73	Cloud-resolving model intercomparison of an MC3E squall line case: Part I—Convective updrafts. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 9351-9378.	3.3	106
74	Reassessing the atmospheric oxidation mechanism of toluene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 8169-8174.	7.1	151
75	Trans-Pacific transport of dust aerosols from East Asia: Insights gained from multiple observations and modeling. <i>Environmental Pollution</i> , 2017, 230, 1030-1039.	7.5	111
76	Warming effect of dust aerosols modulated by overlapping clouds below. <i>Atmospheric Environment</i> , 2017, 166, 393-402.	4.1	23
77	The blue skies in Beijing during APEC 2014: A quantitative assessment of emission control efficiency and meteorological influence. <i>Atmospheric Environment</i> , 2017, 167, 235-244.	4.1	33
78	Adducts of aqua complexes of Ln <sup>3+</sup> with a di-hydroxylated symmetrical octamethyl-substituted cucurbituril: potential applications for isolation of heavier lanthanides. <i>CrystEngComm</i> , 2017, 19, 5635-5639.	2.6	13
79	Mono-, Di-, and Tri-Hydroxylated Symmetrical Hexamethylcucurbit[3,3]uril and Allylated Derivatives. <i>European Journal of Organic Chemistry</i> , 2017, 2017, 6980-6985.	2.4	3
80	The linkage between stratospheric water vapor and surface temperature in an observation-constrained coupled general circulation model. <i>Climate Dynamics</i> , 2017, 48, 2671-2683.	3.8	26
81	Aerosol vertical distribution and optical properties over China from long-term satellite and ground-based remote sensing. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 2509-2523.	4.9	105
82	Toward reconciling the influence of atmospheric aerosols and greenhouse gases on light precipitation changes in Eastern China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 5878-5887.	3.3	46
83	Markedly enhanced absorption and direct radiative forcing of black carbon under polluted urban environments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 4266-4271.	7.1	453
84	Aerosol and monsoon climate interactions over Asia. <i>Reviews of Geophysics</i> , 2016, 54, 866-929.	23.0	591
85	Reply to Boucher et al.: Rate and timescale of black carbon aging regulate direct radiative forcing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E5094-5.	7.1	4
86	Review of Aerosol-Cloud Interactions: Mechanisms, Significance, and Challenges. <i>Journals of the Atmospheric Sciences</i> , 2016, 73, 4221-4252.	1.7	439
87	Persistent sulfate formation from London Fog to Chinese haze. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 13630-13635.	7.1	1,044
88	Distinct Impacts of Aerosols on an Evolving Continental Cloud Complex during the RACORO Field Campaign. <i>Journals of the Atmospheric Sciences</i> , 2016, 73, 3681-3700.	1.7	30
89	Air pollution or global warming: Attribution of extreme precipitation changes in eastern China—Comments on “Trends of extreme precipitation in Eastern China and their possible causes”. <i>Advances in Atmospheric Sciences</i> , 2015, 32, 1444-1446.	4.3	16
90	Atmospheric responses to the redistribution of anthropogenic aerosols. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 9625-9641.	3.3	86

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91	Impacts of Urban Pollution on Thunderstorms. Springer Theses, 2015, , 17-35.	0.1	0
92	Formation of Urban Fine Particulate Matter. Chemical Reviews, 2015, 115, 3803-3855.	47.7	988
93	Numerical Model Description. Springer Theses, 2015, , 9-15.	0.1	0
94	Impacts of Asian Pollution Outflows on the Pacific Storm Track. Springer Theses, 2015, , 55-83.	0.1	0
95	Aerosol Effects on the Stratocumulus and Evaluations of Microphysics. Springer Theses, 2015, , 37-53.	0.1	0
96	Assessing the effects of anthropogenic aerosols on Pacific storm track using a multiscale global climate model. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6894-6899.	7.1	130
97	Asian pollution climatically modulates mid-latitude cyclones following hierarchical modelling and observational analysis. Nature Communications, 2014, 5, 3098.	12.8	151
98	Distinct effects of anthropogenic aerosols on tropical cyclones. Nature Climate Change, 2014, 4, 368-373.	18.8	89
99	Measurements of submicron aerosols at the California-Mexico border during the Cal-Mex 2010 field campaign. Atmospheric Environment, 2014, 88, 308-319.	4.1	32
100	Measurements of nitrous acid (HONO) using ion drift-chemical ionization mass spectrometry during the 2009 SHARP field campaign. Atmospheric Environment, 2014, 94, 231-240.	4.1	35
101	New Directions: Light absorbing aerosols and their atmospheric impacts. Atmospheric Environment, 2013, 81, 713-715.	4.1	174
102	Influence of Electrolytes and Humic Acid on Aggregation Behavior of C60 Nanoparticles in Aquatic System. Applied Mechanics and Materials, 2013, 448-453, 48-51.	0.2	0
103	Improving bulk microphysics parameterizations in simulations of aerosol effects. Journal of Geophysical Research D: Atmospheres, 2013, 118, 5361-5379.	3.3	69
104	Measurements of submicron aerosols in Houston, Texas during the 2009 SHARP field campaign. Journal of Geophysical Research D: Atmospheres, 2013, 118, 10,518.	3.3	56
105	Aerosol impacts on clouds and precipitation in eastern China: Results from bin and bulk microphysics. Journal of Geophysical Research, 2012, 117, .	3.3	152
106	Long-term impacts of aerosols on precipitation and lightning over the Pearl River Delta megacity area in China. Atmospheric Chemistry and Physics, 2011, 11, 12421-12436.	4.9	183
107	Impacts of aerosols on the development and precipitation of a mesoscale squall line. Journal of Geophysical Research, 2009, 114, .	3.3	66
108	Implementation of a two-moment bulk microphysics scheme to the WRF model to investigate aerosol-cloud interaction. Journal of Geophysical Research, 2008, 113, .	3.3	162

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109	Increased winter precipitation over the North Pacific from 1984â€“1994 to 1995â€“2005 inferred from the Global Precipitation Climatology Project. Geophysical Research Letters, 2008, 35, .	4.0	34