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List of Publications by Year
in descending order

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100 papers	14,472 citations	20817 60 h-index	33894 99 g-index
143 all docs	143 docs citations	143 times ranked	11012 citing authors

#	Article	IF	Citations
1	The Model of Emissions of Gases and Aerosols from Nature version 2.1 (MEGAN2.1): an extended and updated framework for modeling biogenic emissions. Geoscientific Model Development, 2012, 5, 1471-1492.	3.6	2,535
2	CAM-chem: description and evaluation of interactive atmospheric chemistry in the Community Earth System Model. Geoscientific Model Development, 2012, 5, 369-411.	3.6	633
3	A large organic aerosol source in the free troposphere missing from current models. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	576
4	Transport and Chemical Evolution over the Pacific (TRACE-P) aircraft mission: Design, execution, and first results. Journal of Geophysical Research, 2003, 108, .	3.3	510
5	Threat to future global food security from climate change and ozone air pollution. Nature Climate Change, 2014, 4, 817-821.	18.8	429
6	A simplified description of the evolution of organic aerosol composition in the atmosphere. Geophysical Research Letters, 2010, 37, .	4.0	412
7	Global modeling of secondary organic aerosol formation from aromatic hydrocarbons: high- vs. low-yield pathways. Atmospheric Chemistry and Physics, 2008, 8, 2405-2420.	4.9	366
8	Predicted change in global secondary organic aerosol concentrations in response to future climate, emissions, and land use change. Journal of Geophysical Research, 2008, 113, .	3.3	335
9	Smaller desert dust cooling effect estimated from analysis of dust size and abundance. Nature Geoscience, 2017, 10, 274-278.	12.9	306
10	Biogenic carbon and anthropogenic pollutants combine to form a cooling haze over the southeastern United States. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8835-8840.	7.1	286
11	Sources and properties of Amazonian aerosol particles. Reviews of Geophysics, 2010, 48, .	23.0	283
12	Relative roles of biogenic emissions and Saharan dust as ice nuclei in the Amazon basin. Nature Geoscience, 2009, 2, 402-405.	12.9	282
13	Exploring the vertical profile of atmospheric organic aerosol: comparing 17 aircraft field campaigns with a global model. Atmospheric Chemistry and Physics, 2011, 11, 12673-12696.	4.9	240
14	Atmospheric ammonia and particulate inorganic nitrogen over the United States. Atmospheric Chemistry and Physics, 2012, 12, 10295-10312.	4.9	240
15	Spatial distribution of isoprene emissions from North America derived from formaldehyde column measurements by the OMI satellite sensor. Journal of Geophysical Research, 2008, 113, .	3.3	234
16	Comparative inverse analysis of satellite (MOPITT) and aircraft (TRACE-P) observations to estimate Asian sources of carbon monoxide. Journal of Geophysical Research, 2004, 109, .	3.3	217
17	Exploiting simultaneous observational constraints on mass and absorption to estimate the global direct radiative forcing of black carbon and brown carbon. Atmospheric Chemistry and Physics, 2014, 14, 10989-11010.	4.9	213
18	Aerosol Impacts on Climate and Biogeochemistry. Annual Review of Environment and Resources, 2011, 36, 45-74.	13.4	207

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19	Transpacific transport of Asian anthropogenic aerosols and its impact on surface air quality in the United States. Journal of Geophysical Research, 2006, 111, .	3.3	203
20	Global distributions, time series and error characterization of atmospheric ammonia (NH₃) from IASI satellite observations. Atmospheric Chemistry and Physics, 2014, 14, 2905-2922.	4.9	195
21	Inventory of boreal fire emissions for North America in 2004: Importance of peat burning and pyroconvective injection. Journal of Geophysical Research, 2007, 112, .	3.3	194
22	Inverting for emissions of carbon monoxide from Asia using aircraft observations over the western Pacific. Journal of Geophysical Research, 2003, 108, .	3.3	178
23	Future Fire Impacts on Smoke Concentrations, Visibility, and Health in the Contiguous United States. GeoHealth, 2018, 2, 229-247.	4.0	176
24	Mass spectral characterization of submicron biogenic organic particles in the Amazon Basin. Geophysical Research Letters, 2009, 36, .	4.0	171
25	Contrasting the direct radiative effect and direct radiative forcing of aerosols. Atmospheric Chemistry and Physics, 2014, 14, 5513-5527.	4.9	171
26	Evolution of Asian aerosols during transpacific transport in INTEX-B. Atmospheric Chemistry and Physics, 2009, 9, 7257-7287.	4.9	170
27	Atmospheric budget of primary biological aerosol particles from fungal spores. Geophysical Research Letters, 2009, 36, .	4.0	169
28	Response of isoprene emission to ambient CO₂ changes and implications for global budgets. Global Change Biology, 2009, 15, 1127-1140.	9.5	158
29	North African dust export and deposition: A satellite and model perspective. Journal of Geophysical Research, 2012, 117, .	3.3	157
30	North American pollution outflow and the trapping of convectively lifted pollution by upper-level anticyclone. Journal of Geophysical Research, 2005, 110, .	3.3	156
31	The complex chemical effects of COVID-19 shutdowns on air quality. Nature Chemistry, 2020, 12, 777-779.	13.6	154
32	Maritime aerosol network as a component of AERONET â€“ first results and comparison with global aerosol models and satellite retrievals. Atmospheric Measurement Techniques, 2011, 4, 583-597.	3.1	152
33	Comparison of adjoint and analytical Bayesian inversion methods for constraining Asian sources of carbon monoxide using satellite (MOPITT) measurements of CO columns. Journal of Geophysical Research, 2009, 114, .	3.3	143
34	A global three-dimensional model analysis of the atmospheric budgets of HCN and CH3CN: Constraints from aircraft and ground measurements. Journal of Geophysical Research, 2003, 108, .	3.3	126
35	Deriving brown carbon from multiwavelength absorption measurements: method and application to AERONET and Aethalometer observations. Atmospheric Chemistry and Physics, 2016, 16, 12733-12752.	4.9	123
36	An observationally constrained estimate of global dust aerosol optical depth. Atmospheric Chemistry and Physics, 2016, 16, 15097-15117.	4.9	121

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37	Exploring the observational constraints on the simulation of brown carbon. Atmospheric Chemistry and Physics, 2018, 18, 635-653.	4.9	121
38	Coupling dry deposition to vegetation phenology in the Community Earth System Model: Implications for the simulation of surface O₃. Geophysical Research Letters, 2014, 41, 2988-2996.	4.0	113
39	Concentrations and sources of organic carbon aerosols in the free troposphere over North America. Journal of Geophysical Research, 2006, 111, .	3.3	111
40	How emissions, climate, and land use change will impact mid-century air quality over the United States: a focus on effects at national parks. Atmospheric Chemistry and Physics, 2015, 15, 2805-2823.	4.9	105
41	Land Use Change Impacts on Air Quality and Climate. Chemical Reviews, 2015, 115, 4476-4496.	47.7	103
42	Biomass burning emission inventory with daily resolution: Application to aircraft observations of Asian outflow. Journal of Geophysical Research, 2003, 108, .	3.3	100
43	What controls the recent changes in African mineral dust aerosol across the Atlantic?. Atmospheric Chemistry and Physics, 2014, 14, 5735-5747.	4.9	96
44	A flexible and robust neural network IASIâ€NH₃ retrieval algorithm. Journal of Geophysical Research D: Atmospheres, 2016, 121, 6581-6599.	3.3	96
45	Total observed organic carbon (TOOC) in the atmosphere: a synthesis of North American observations. Atmospheric Chemistry and Physics, 2008, 8, 2007-2025.	4.9	94
46	Airborne observations of regional variation in fluorescent aerosol across the United States. Journal of Geophysical Research D: Atmospheres, 2015, 120, 1153-1170.	3.3	93
47	An evaluation of global organic aerosol schemes using airborne observations. Atmospheric Chemistry and Physics, 2020, 20, 2637-2665.	4.9	90
48	Calibration and assessment of electrochemical air quality sensors by co-location with regulatory-grade instruments. Atmospheric Measurement Techniques, 2018, 11, 315-328.	3.1	89
49	The contribution of fungal spores and bacteria to regional and global aerosol number and ice nucleation immersion freezing rates. Atmospheric Chemistry and Physics, 2014, 14, 9051-9059.	4.9	88
50	Current and future ozone risks to global terrestrial biodiversity and ecosystem processes. Ecology and Evolution, 2016, 6, 8785-8799.	1.9	86
51	Elemental composition of organic aerosol: The gap between ambient and laboratory measurements. Geophysical Research Letters, 2015, 42, 4182-4189.	4.0	84
52	Satellite observations cap the atmospheric organic aerosol budget. Geophysical Research Letters, 2010, 37, .	4.0	82
53	Effect of CO₂ inhibition on biogenic isoprene emission: Implications for air quality under 2000 to 2050 changes in climate, vegetation, and land use. Geophysical Research Letters, 2013, 40, 3479-3483.	4.0	75
54	The mechanisms and meteorological drivers of the summertime ozoneâ€“temperature relationship. Atmospheric Chemistry and Physics, 2019, 19, 13367-13381.	4.9	72

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55	An investigation of ammonia and inorganic particulate matter in California during the CalNex campaign. Journal of Geophysical Research D: Atmospheres, 2014, 119, 1883-1902.	3.3	69
56	Investigating the observed sensitivities of air-quality extremes to meteorological drivers via quantile regression. Atmospheric Chemistry and Physics, 2015, 15, 10349-10366.	4.9	68
57	How emissions uncertainty influences the distribution and radiative impacts of smoke from fires in North America. Atmospheric Chemistry and Physics, 2020, 20, 2073-2097.	4.9	67
58	The fuel of atmospheric chemistry: Toward a complete description of reactive organic carbon. Science Advances, 2020, 6, eaay8967.	10.3	67
59	Comprehensive characterization of atmospheric organic carbon at a forested site. Nature Geoscience, 2017, 10, 748-753.	12.9	66
60	Toward resolutionâ€independent dust emissions in global models: Impacts on the seasonal and spatial distribution of dust. Geophysical Research Letters, 2013, 40, 2873-2877.	4.0	63
61	Causes and consequences of decreasing atmospheric organic aerosol in the United States. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 290-295.	7.1	62
62	Investigating Dry Deposition of Ozone to Vegetation. Journal of Geophysical Research D: Atmospheres, 2018, 123, 559-573.	3.3	56
63	Investigating organic aerosol loading in the remote marine environment. Atmospheric Chemistry and Physics, 2011, 11, 8847-8860.	4.9	54
64	Aerosol loading in the Southeastern United States: reconciling surface and satellite observations. Atmospheric Chemistry and Physics, 2013, 13, 9269-9283.	4.9	53
65	SALSA2.0: The sectional aerosol module of the aerosolâ€“chemistryâ€“climate model ECHAM6.3.0-HAM2.3-MOZ1.0. Geoscientific Model Development, 2018, 11, 3833-3863.	3.6	52
66	The global nonmethane reactive organic carbon budget: A modeling perspective. Geophysical Research Letters, 2017, 44, 3897-3906.	4.0	51
67	Interannual variability of ammonia concentrations over the United States: sources and implications. Atmospheric Chemistry and Physics, 2016, 16, 12305-12328.	4.9	48
68	Laboratory Investigation of Renoxification from the Photolysis of Inorganic Particulate Nitrate. Environmental Science & Technology, 2021, 55, 854-861.	10.0	46
69	A decadal satellite analysis of the origins and impacts of smoke in Colorado. Atmospheric Chemistry and Physics, 2013, 13, 7429-7439.	4.9	44
70	The impact of bark beetle infestations on monoterpene emissions and secondary organic aerosol formation in western North America. Atmospheric Chemistry and Physics, 2013, 13, 3149-3161.	4.9	42
71	Updated World Health Organization Air Quality Guidelines Highlight the Importance of Non-anthropogenic PM_{2.5}. Environmental Science and Technology Letters, 2022, 9, 501-506.	8.7	41
72	Persistent sensitivity of Asian aerosol to emissions of nitrogen oxides. Geophysical Research Letters, 2013, 40, 1021-1026.	4.0	40

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73	Exploring the uncertainty associated with satellite-based estimates of premature mortality due to exposure to fine particulate matter. Atmospheric Chemistry and Physics, 2016, 16, 3499-3523.	4.9	40
74	An Aâ€train and model perspective on the vertical distribution of aerosols and CO in the Northern Hemisphere. Journal of Geophysical Research, 2012, 117, .	3.3	37
75	Constraining remote oxidation capacity with ATom observations. Atmospheric Chemistry and Physics, 2020, 20, 7753-7781.	4.9	36
76	Exploring dimethyl sulfide (DMS) oxidation and implications for global aerosol radiative forcing. Atmospheric Chemistry and Physics, 2022, 22, 1549-1573.	4.9	33
77	Particulate matter air pollution may offset ozone damage to global crop production. Atmospheric Chemistry and Physics, 2018, 18, 5953-5966.	4.9	31
78	Coupling between surface ozone and leaf area index in a chemical transport model: strength of feedback and implications for ozone air quality and vegetation health. Atmospheric Chemistry and Physics, 2018, 18, 14133-14148.	4.9	30
79	Atmospheric Evolution of Sulfur Emissions from KÄ±Ì…lauea: Real-Time Measurements of Oxidation, Dilution, and Neutralization within a Volcanic Plume. Environmental Science & Technology, 2015, 49, 4129-4137.	10.0	29
80	The impact of historical land use change from 1850 to 2000 on secondary particulate matter and ozone. Atmospheric Chemistry and Physics, 2016, 16, 14997-15010.	4.9	27
81	Impact of aromatics and monoterpenes on simulated tropospheric ozone and total OH reactivity. Atmospheric Environment, 2017, 169, 250-257.	4.1	26
82	Land cover change impacts on atmospheric chemistry: simulating projected large-scale tree mortality in the United States. Atmospheric Chemistry and Physics, 2016, 16, 2323-2340.	4.9	21
83	Investigating Carbonaceous Aerosol and Its Absorption Properties From Fires in the Western United States (WEâ€CAN) and Southern Africa (ORACLES and CLARIFY). Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034984.	3.3	21
84	Organic Sulfur Products and Peroxy Radical Isomerization in the OH Oxidation of Dimethyl Sulfide. ACS Earth and Space Chemistry, 2021, 5, 2013-2020.	2.7	20
85	A Deep Learning Parameterization for Ozone Dry Deposition Velocities. Geophysical Research Letters, 2019, 46, 983-989.	4.0	17
86	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
87	Sensitivity of the interannual variability of mineral aerosol simulations to meteorological forcing dataset. Atmospheric Chemistry and Physics, 2017, 17, 3253-3278.	4.9	14
88	Mapping pollution exposure and chemistry during an extreme air quality event (the 2018 KÄ«lauea) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 United States of America, 2021, 118, .	7.1	13
89	Impacts of current and projected oil palm plantation expansion on air quality over Southeast Asia. Atmospheric Chemistry and Physics, 2016, 16, 10621-10635.	4.9	12
90	Evaluating model parameterizations of submicron aerosol scattering and absorption with in situ data from ARCTAS 2008. Atmospheric Chemistry and Physics, 2016, 16, 9435-9455.	4.9	12

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91	A Global Assessment of Dissolved Organic Carbon in Precipitation. Geophysical Research Letters, 2017, 44, 11,672.	4.0	12
92	Modeling the spatial behavior of the meteorological drivers' effects on extreme ozone. Environmetrics, 2016, 27, 334-344.	1.4	11
93	Exploring the Global Importance of Atmospheric Ammonia Oxidation. ACS Earth and Space Chemistry, 2021, 5, 1674-1685.	2.7	11
94	Model-measurement consistency and limits of bioaerosol abundance over the continental United States. Atmospheric Chemistry and Physics, 2019, 19, 13859-13870.	4.9	9
95	Spaceâ€Based Constraints on Terrestrial Glyoxal Production. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,583.	3.3	8
96	Drivers of the fungal spore bioaerosol budget: observational analysis and global modeling. Atmospheric Chemistry and Physics, 2021, 21, 4381-4401.	4.9	7
97	Resource and physiological constraints on global crop production enhancements from atmospheric particulate matter and nitrogen deposition. Biogeosciences, 2018, 15, 4301-4315.	3.3	6
98	Exploring the Constraints on Simulated Aerosol Sources and Transport Across the North Atlantic With Islandâ€Based Sun Photometers. Earth and Space Science, 2020, 7, e2020EA001392.	2.6	4
99	Development of a reduced-complexity plant canopy physics surrogate model for use in chemical transport models: a case study with GEOS-Chem v12.3.0. Geoscientific Model Development, 2020, 13, 2569-2585.	3.6	4
100	Highlights from the Faraday Discussion meeting â€œAtmospheric chemistry in the Anthropoceneâ€, York, 2017. Chemical Communications, 2017, 53, 12494-12498.	4.1	0