

Colette L Heald

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	Exploring dimethyl sulfide (DMS) oxidation and implications for global aerosol radiative forcing. Atmospheric Chemistry and Physics, 2022, 22, 1549-1573.	4.9	33
2	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
3	Laboratory Investigation of Renoxification from the Photolysis of Inorganic Particulate Nitrate. Environmental Science & Technology, 2021, 55, 854-861.	10.0	46
4	Drivers of the fungal spore bioaerosol budget: observational analysis and global modeling. Atmospheric Chemistry and Physics, 2021, 21, 4381-4401.	4.9	7
5	Mapping pollution exposure and chemistry during an extreme air quality event (the 2018 K��lauea) Tj ETQq1 1 0.784314 rgBT /Over United States of America, 2021, 118, .	7.1	13
6	Exploring the Global Importance of Atmospheric Ammonia Oxidation. ACS Earth and Space Chemistry, 2021, 5, 1674-1685.	2.7	11
7	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
8	Investigating Carbonaceous Aerosol and Its Absorption Properties From Fires in the Western United States (WE��CAN) and Southern Africa (ORACLES and CLARIFY). Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034984.	3.3	21
9	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
10	The complex chemical effects of COVID-19 shutdowns on air quality. Nature Chemistry, 2020, 12, 777-779.	13.6	154
11	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
12	The fuel of atmospheric chemistry: Toward a complete description of reactive organic carbon. Science Advances, 2020, 6, eaay8967.	10.3	67
13	Exploring the Constraints on Simulated Aerosol Sources and Transport Across the North Atlantic With Island��Based Sun Photometers. Earth and Space Science, 2020, 7, e2020EA001392.	2.6	4
14	An evaluation of global organic aerosol schemes using airborne observations. Atmospheric Chemistry and Physics, 2020, 20, 2637-2665.	4.9	90
15	Constraining remote oxidation capacity with ATom observations. Atmospheric Chemistry and Physics, 2020, 20, 7753-7781.	4.9	36
16	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
17	The mechanisms and meteorological drivers of the summertime ozone��temperature relationship. Atmospheric Chemistry and Physics, 2019, 19, 13367-13381.	4.9	72
18	Model-measurement consistency and limits of bioaerosol abundance over the continental United States. Atmospheric Chemistry and Physics, 2019, 19, 13859-13870.	4.9	9

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19	A Deep Learning Parameterization for Ozone Dry Deposition Velocities. <i>Geophysical Research Letters</i> , 2019, 46, 983-989.	4.0	17
20	Investigating Dry Deposition of Ozone to Vegetation. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 559-573.	3.3	56
21	Causes and consequences of decreasing atmospheric organic aerosol in the United States. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 290-295.	7.1	62
22	Exploring the observational constraints on the simulation of brown carbon. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 635-653.	4.9	121
23	Future Fire Impacts on Smoke Concentrations, Visibility, and Health in the Contiguous United States. <i>GeoHealth</i> , 2018, 2, 229-247.	4.0	176
24	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. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 14133-14148.	4.9	30
25	Space-Based Constraints on Terrestrial Glyoxal Production. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 13,583.	3.3	8
26	SALSA2.0: The sectional aerosol module of the aerosol-chemistry-climate model ECHAM6.3.0-HAM2.3-MOZ1.0. <i>Geoscientific Model Development</i> , 2018, 11, 3833-3863.	3.6	52
27	Resource and physiological constraints on global crop production enhancements from atmospheric particulate matter and nitrogen deposition. <i>Biogeosciences</i> , 2018, 15, 4301-4315.	3.3	6
28	Calibration and assessment of electrochemical air quality sensors by co-location with regulatory-grade instruments. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 315-328.	3.1	89
29	Particulate matter air pollution may offset ozone damage to global crop production. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 5953-5966.	4.9	31
30	The global nonmethane reactive organic carbon budget: A modeling perspective. <i>Geophysical Research Letters</i> , 2017, 44, 3897-3906.	4.0	51
31	Smaller desert dust cooling effect estimated from analysis of dust size and abundance. <i>Nature Geoscience</i> , 2017, 10, 274-278.	12.9	306
32	Impact of aromatics and monoterpenes on simulated tropospheric ozone and total OH reactivity. <i>Atmospheric Environment</i> , 2017, 169, 250-257.	4.1	26
33	A Global Assessment of Dissolved Organic Carbon in Precipitation. <i>Geophysical Research Letters</i> , 2017, 44, 11,672.	4.0	12
34	Highlights from the Faraday Discussion meeting "Atmospheric chemistry in the Anthropocene", York, 2017. <i>Chemical Communications</i> , 2017, 53, 12494-12498.	4.1	0
35	Sensitivity of the interannual variability of mineral aerosol simulations to meteorological forcing dataset. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 3253-3278.	4.9	14
36	Comprehensive characterization of atmospheric organic carbon at a forested site. <i>Nature Geoscience</i> , 2017, 10, 748-753.	12.9	66

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37	A flexible and robust neural network IASI retrieval algorithm. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 6581-6599.	3.3	96
38	Current and future ozone risks to global terrestrial biodiversity and ecosystem processes. <i>Ecology and Evolution</i> , 2016, 6, 8785-8799.	1.9	86
39	Impacts of current and projected oil palm plantation expansion on air quality over Southeast Asia. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 10621-10635.	4.9	12
40	Deriving brown carbon from multiwavelength absorption measurements: method and application to AERONET and Aethalometer observations. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 12733-12752.	4.9	123
41	The impact of historical land use change from 1850 to 2000 on secondary particulate matter and ozone. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 14997-15010.	4.9	27
42	An observationally constrained estimate of global dust aerosol optical depth. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 15097-15117.	4.9	121
43	Interannual variability of ammonia concentrations over the United States: sources and implications. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 12305-12328.	4.9	48
44	Land cover change impacts on atmospheric chemistry: simulating projected large-scale tree mortality in the United States. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 2323-2340.	4.9	21
45	Exploring the uncertainty associated with satellite-based estimates of premature mortality due to exposure to fine particulate matter. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 3499-3523.	4.9	40
46	Evaluating model parameterizations of submicron aerosol scattering and absorption with in situ data from ARCTAS 2008. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 9435-9455.	4.9	12
47	Modeling the spatial behavior of the meteorological drivers' effects on extreme ozone. <i>Environmetrics</i> , 2016, 27, 334-344.	1.4	11
48	How emissions, climate, and land use change will impact mid-century air quality over the United States: a focus on effects at national parks. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 2805-2823.	4.9	105
49	Investigating the observed sensitivities of air-quality extremes to meteorological drivers via quantile regression. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 10349-10366.	4.9	68
50	Elemental composition of organic aerosol: The gap between ambient and laboratory measurements. <i>Geophysical Research Letters</i> , 2015, 42, 4182-4189.	4.0	84
51	Airborne observations of regional variation in fluorescent aerosol across the United States. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 1153-1170.	3.3	93
52	Atmospheric Evolution of Sulfur Emissions from KÄ±l...lauea: Real-Time Measurements of Oxidation, Dilution, and Neutralization within a Volcanic Plume. <i>Environmental Science & Technology</i> , 2015, 49, 4129-4137.	10.0	29
53	Land Use Change Impacts on Air Quality and Climate. <i>Chemical Reviews</i> , 2015, 115, 4476-4496.	47.7	103
54	Exploiting simultaneous observational constraints on mass and absorption to estimate the global direct radiative forcing of black carbon and brown carbon. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 10989-11010.	4.9	213

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55	Contrasting the direct radiative effect and direct radiative forcing of aerosols. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 5513-5527.	4.9	171
56	Coupling dry deposition to vegetation phenology in the Community Earth System Model: Implications for the simulation of surface O_3 . <i>Geophysical Research Letters</i> , 2014, 41, 2988-2996.	4.0	113
57	Threat to future global food security from climate change and ozone air pollution. <i>Nature Climate Change</i> , 2014, 4, 817-821.	18.8	429
58	Global distributions, time series and error characterization of atmospheric ammonia (NH_3) from IASI satellite observations. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 2905-2922.	4.9	195
59	What controls the recent changes in African mineral dust aerosol across the Atlantic?. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 5735-5747.	4.9	96
60	The contribution of fungal spores and bacteria to regional and global aerosol number and ice nucleation immersion freezing rates. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 9051-9059.	4.9	88
61	An investigation of ammonia and inorganic particulate matter in California during the CalNex campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 1883-1902.	3.3	69
62	Toward resolution-independent dust emissions in global models: Impacts on the seasonal and spatial distribution of dust. <i>Geophysical Research Letters</i> , 2013, 40, 2873-2877.	4.0	63
63	The impact of bark beetle infestations on monoterpene emissions and secondary organic aerosol formation in western North America. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 3149-3161.	4.9	42
64	A decadal satellite analysis of the origins and impacts of smoke in Colorado. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 7429-7439.	4.9	44
65	Aerosol loading in the Southeastern United States: reconciling surface and satellite observations. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 9269-9283.	4.9	53
66	Persistent sensitivity of Asian aerosol to emissions of nitrogen oxides. <i>Geophysical Research Letters</i> , 2013, 40, 1021-1026.	4.0	40
67	Effect of CO_2 inhibition on biogenic isoprene emission: Implications for air quality under 2000 to 2050 changes in climate, vegetation, and land use. <i>Geophysical Research Letters</i> , 2013, 40, 3479-3483.	4.0	75
68	The Model of Emissions of Gases and Aerosols from Nature version 2.1 (MEGAN2.1): an extended and updated framework for modeling biogenic emissions. <i>Geoscientific Model Development</i> , 2012, 5, 1471-1492.	3.6	2,535
69	CAM-chem: description and evaluation of interactive atmospheric chemistry in the Community Earth System Model. <i>Geoscientific Model Development</i> , 2012, 5, 369-411.	3.6	633
70	Atmospheric ammonia and particulate inorganic nitrogen over the United States. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 10295-10312.	4.9	240
71	North African dust export and deposition: A satellite and model perspective. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	157
72	An A-train and model perspective on the vertical distribution of aerosols and CO in the Northern Hemisphere. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	37

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73	Aerosol Impacts on Climate and Biogeochemistry. Annual Review of Environment and Resources, 2011, 36, 45-74.	13.4	207
74	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
75	Investigating organic aerosol loading in the remote marine environment. Atmospheric Chemistry and Physics, 2011, 11, 8847-8860.	4.9	54
76	Maritime aerosol network as a component of AERONET " first results and comparison with global aerosol models and satellite retrievals. Atmospheric Measurement Techniques, 2011, 4, 583-597.	3.1	152
77	A simplified description of the evolution of organic aerosol composition in the atmosphere. Geophysical Research Letters, 2010, 37, .	4.0	412
78	Satellite observations cap the atmospheric organic aerosol budget. Geophysical Research Letters, 2010, 37, .	4.0	82
79	Sources and properties of Amazonian aerosol particles. Reviews of Geophysics, 2010, 48, .	23.0	283
80	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
81	Response of isoprene emission to ambient CO ₂ changes and implications for global budgets. Global Change Biology, 2009, 15, 1127-1140.	9.5	158
82	Relative roles of biogenic emissions and Saharan dust as ice nuclei in the Amazon basin. Nature Geoscience, 2009, 2, 402-405.	12.9	282
83	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
84	Atmospheric budget of primary biological aerosol particles from fungal spores. Geophysical Research Letters, 2009, 36, .	4.0	169
85	Mass spectral characterization of submicron biogenic organic particles in the Amazon Basin. Geophysical Research Letters, 2009, 36, .	4.0	171
86	Evolution of Asian aerosols during transpacific transport in INTEX-B. Atmospheric Chemistry and Physics, 2009, 9, 7257-7287.	4.9	170
87	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
88	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
89	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
90	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

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91	Inventory of boreal fire emissions for North America in 2004: Importance of peat burning and pyroconvective injection. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	194
92	Transpacific transport of Asian anthropogenic aerosols and its impact on surface air quality in the United States. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	203
93	Concentrations and sources of organic carbon aerosols in the free troposphere over North America. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	111
94	North American pollution outflow and the trapping of convectively lifted pollution by upper-level anticyclone. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	156
95	A large organic aerosol source in the free troposphere missing from current models. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	4.0	576
96	Comparative inverse analysis of satellite (MOPITT) and aircraft (TRACE-P) observations to estimate Asian sources of carbon monoxide. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	217
97	A global three-dimensional model analysis of the atmospheric budgets of HCN and CH ₃ CN: Constraints from aircraft and ground measurements. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	126
98	Biomass burning emission inventory with daily resolution: Application to aircraft observations of Asian outflow. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	100
99	Transport and Chemical Evolution over the Pacific (TRACE-P) aircraft mission: Design, execution, and first results. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	510
100	Inverting for emissions of carbon monoxide from Asia using aircraft observations over the western Pacific. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	178