Elisabeth Andrews

List of Publications by Year
in descending order

86 papers	6,702 citations	76196 40 h-index	69108 77 g-index
139 all docs	139 docs citations	139 times ranked	5379 citing authors

#	Article	IF	Citations
1	Measuring and simulating particulate organics in the atmosphere: problems and prospects. Atmospheric Environment, 2000, 34, 2983-3013.	1.9	886
2	Arctic haze: current trends and knowledge gaps. Tellus, Series B: Chemical and Physical Meteorology, 2007, 59, 99-114.	0.8	318
3	A 3-year record of simultaneously measured aerosol chemical and optical properties at Barrow, Alaska. Journal of Geophysical Research, 2002, 107, AAC 8-1-AAC 8-15.	3.3	239
4	Comparison of the radiative properties and direct radiative effect of aerosols from a global aerosol model and remote sensing data over ocean. Tellus, Series B: Chemical and Physical Meteorology, 2007, 59, 115-129.	0.8	235
5	Comparison of methods for deriving aerosol asymmetry parameter. Journal of Geophysical Research, 2006, 111, .	3.3	220
6	The Reno Aerosol Optics Study: An Evaluation of Aerosol Absorption Measurement Methods. Aerosol Science and Technology, 2005, 39, 1-16.	1.5	215
7	Explaining global surface aerosol number concentrations in terms of primary emissions and particle formation. Atmospheric Chemistry and Physics, 2010, 10, 4775-4793.	1.9	212
8	Pan-Arctic enhancements of light absorbing aerosol concentrations due to North American boreal forest fires during summer 2004. Journal of Geophysical Research, 2006, 111, .	3.3	205
9	Variations and sources of the equivalent black carbon in the high Arctic revealed by long-term observations at Alert and Barrow: 1989â€“2003. Journal of Geophysical Research, 2006, 111, .	3.3	188
10	Aerosols in polar regions: A historical overview based on optical depth and in situ observations. Journal of Geophysical Research, 2007, 112, .	3.3	173
11	Effect of surfactant layers on the size changes of aerosol particles as a function of relative humidity. Environmental Science & Technology, 1993, 27, 857-865.	4.6	168
12	16â€year simulation of Arctic black carbon: Transport, source contribution, and sensitivity analysis on deposition. Journal of Geophysical Research D: Atmospheres, 2013, 118, 943-964.	1.2	154
13	Aerosol decadal trends â€“ Part 1: In-situ optical measurements at GAW and IMPROVE stations. Atmospheric Chemistry and Physics, 2013, 13, 869-894.	1.9	126
14	CCN predictions using simplified assumptions of organic aerosol composition and mixing state: a synthesis from six different locations. Atmospheric Chemistry and Physics, 2010, 10, 4795-4807.	1.9	124
15	Climatology of aerosol radiative properties in the free troposphere. Atmospheric Research, 2011, 102, 365-393.	1.8	121
16	Prediction of cloud condensation nucleus number concentration using measurements of aerosol size distributions and composition and light scattering enhancement due to humidity. Journal of Geophysical Research, 2007, 112, .	3.3	119
17	Scientists and Public Outreach: Participation, Motivations, and Impediments. Journal of Geoscience Education, 2005, 53, 281-293.	0.8	118
18	Concentration and Composition of Atmospheric Aerosols from the 1995 SEAVS Experiment and a Review of the Closure between Chemical and Gravimetric Measurements. Journal of the Air and Waste Management Association, 2000, 50, 648-664.	0.9	117

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19	Impact of particulate organic matter on the relative humidity dependence of light scattering: A simplified parameterization. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	113
20	INDOEX aerosol: A comparison and summary of chemical, microphysical, and optical properties observed from land, ship, and aircraft. Journal of Geophysical Research, 2002, 107, INX2 32-1.	3.3	111
21	Effect of hygroscopic growth on the aerosol light-scattering coefficient: A review of measurements, techniques and error sources. Atmospheric Environment, 2016, 141, 494-507.	1.9	107
22	Aerosol Absorption: Progress Towards Global and Regional Constraints. Current Climate Change Reports, 2018, 4, 65-83.	2.8	103
23	AeroCom phase III multi-model evaluation of the aerosol life cycle and optical properties using ground- and space-based remote sensing as well as surface in situ observations. Atmospheric Chemistry and Physics, 2021, 21, 87-128.	1.9	96
24	Classifying aerosol type using in situ surface spectral aerosol optical properties. Atmospheric Chemistry and Physics, 2017, 17, 12097-12120.	1.9	86
25	Radiative impact of boreal smoke in the Arctic: Observed and modeled. Journal of Geophysical Research, 2008, 113, .	3.3	84
26	Racoro Extended-Term Aircraft Observations of Boundary Layer Clouds. Bulletin of the American Meteorological Society, 2012, 93, 861-878.	1.7	81
27	Seasonality of aerosol optical properties in the Arctic. Atmospheric Chemistry and Physics, 2018, 18, 11599-11622.	1.9	80
28	Aerosol decadal trends â€“ Part 2: In-situ aerosol particle number concentrations at GAW and ACTRIS stations. Atmospheric Chemistry and Physics, 2013, 13, 895-916.	1.9	78
29	In situ aerosol profiles over the Southern Great Plains cloud and radiation test bed site: 1. Aerosol optical properties. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	76
30	Demonstration of Aerosol Property Profiling by Multiwavelength Lidar under Varying Relative Humidity Conditions. Journal of Atmospheric and Oceanic Technology, 2009, 26, 1543-1557.	0.5	75
31	Evaluation of daytime measurements of aerosols and water vapor made by an operational Raman lidar over the Southern Great Plains. Journal of Geophysical Research, 2006, 111, .	3.3	71
32	A multi-year study of lower tropospheric aerosol variability and systematic relationships from four North American regions. Atmospheric Chemistry and Physics, 2015, 15, 12487-12517.	1.9	71
33	Continuous light absorption photometer for long-term studies. Atmospheric Measurement Techniques, 2017, 10, 4805-4818.	1.2	69
34	A global analysis of climate-relevant aerosol properties retrieved from the network of Global Atmosphere Watch (GAW) near-surface observatories. Atmospheric Measurement Techniques, 2020, 13, 4353-4392.	1.2	65
35	Aerosol light-scattering enhancement due to water uptake during the TCAP campaign. Atmospheric Chemistry and Physics, 2014, 14, 7031-7043.	1.9	61
36	Multidecadal trend analysis of in situ aerosol radiative properties around the world. Atmospheric Chemistry and Physics, 2020, 20, 8867-8908.	1.9	58

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37	Comparison of AOD, AAOD and column single scattering albedo from AERONET retrievals and in situ profiling measurements. Atmospheric Chemistry and Physics, 2017, 17, 6041-6072.	1.9	56
38	The DOE ARM Aerial Facility. Bulletin of the American Meteorological Society, 2014, 95, 723-742.	1.7	51
39	Seasonal differences in the vertical profiles of aerosol optical properties over rural Oklahoma. Atmospheric Chemistry and Physics, 2011, 11, 10661-10676.	1.9	50
40	Incursions and radiative impact of Asian dust in northern Alaska. Geophysical Research Letters, 2007, 34, .	1.5	49
41	Comparison between lidar and nephelometer measurements of aerosol hygroscopicity at the Southern Great Plains Atmospheric Radiation Measurement site. Journal of Geophysical Research, 2006, 111, .	3.3	45
42	Effect of aerosol humidification on the column aerosol optical thickness over the Atmospheric Radiation Measurement Southern Great Plains site. Journal of Geophysical Research, 2007, 112, .	3.3	45
43	Coupling aerosol size distributions and size-resolved hygroscopicity to predict humidity-dependent optical properties and cloud condensation nuclei spectra. Journal of Geophysical Research, 2006, 111, .	3.3	44
44	Vertical profiles of aerosol optical properties over central Illinois and comparison with surface and satellite measurements. Atmospheric Chemistry and Physics, 2012, 12, 11695-11721.	1.9	43
45	Size distribution and optical properties of African mineral dust after intercontinental transport. Journal of Geophysical Research D: Atmospheres, 2016, 121, 7117-7138.	1.2	42
46	Effects of the prewhitening method, the time granularity, and the time segmentation on the Mannâ€“Kendall trend detection and the associated Sen's slope. Atmospheric Measurement Techniques, 2020, 13, 6945-6964.	1.2	42
47	Pan-Arctic seasonal cycles and long-term trends of aerosol properties from 10 observatories. Atmospheric Chemistry and Physics, 2022, 22, 3067-3096.	1.9	40
48	Comparison of in situ aerosol extinction and scattering coefficient measurements made during the Aerosol Intensive Operating Period. Journal of Geophysical Research, 2006, 111, .	3.3	39
49	Evaluation of climate model aerosol trends with ground-based observations over the last 2Âdecades â€“ an AeroCom and CMIP6 analysis. Atmospheric Chemistry and Physics, 2020, 20, 13355-13378.	1.9	38
50	Carbonaceous aerosols contributed by traffic and solid fuel burning at a polluted rural site in Northwestern England. Atmospheric Chemistry and Physics, 2011, 11, 1603-1619.	1.9	37
51	Overview of the NOAA/ESRL Federated Aerosol Network. Bulletin of the American Meteorological Society, 2019, 100, 123-135.	1.7	36
52	Sources of discrepancy between aerosol optical depth obtained from AERONET and in-situ aircraft profiles. Atmospheric Chemistry and Physics, 2012, 12, 2987-3003.	1.9	34
53	Overview of the Cumulus Humilis Aerosol Processing Study. Bulletin of the American Meteorological Society, 2009, 90, 1653-1668.	1.7	33
54	Identification of topographic features influencing aerosol observations at high altitude stations. Atmospheric Chemistry and Physics, 2018, 18, 12289-12313.	1.9	31

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55	Seasonality of the particle number concentration and size distribution: a global analysis retrieved from the network of Global Atmosphere Watch (GAW) near-surface observatories. Atmospheric Chemistry and Physics, 2021, 21, 17185-17223.	1.9	31
56	Evaluating the PurpleAir monitor as an aerosol light scattering instrument. Atmospheric Measurement Techniques, 2022, 15, 655-676.	1.2	30
57	A global view on the effect of water uptake on aerosol particle light scattering. Scientific Data, 2019, 6, 157.	2.4	28
58	Atmospheric Radiation Measurements Aerosol Intensive Operating Period: Comparison of aerosol scattering during coordinated flights. Journal of Geophysical Research, 2006, 111, .	3.3	25
59	Contributions of dust and biomass burning to aerosols at a Colorado mountain-top site. Atmospheric Chemistry and Physics, 2015, 15, 13665-13679.	1.9	23
60	Sorption of vapor phase octanoic acid onto deliquescent salt particles. Journal of Geophysical Research, 1996, 101, 19533-19540.	3.3	22
61	Climatology of New Particle Formation and Corresponding Precursors at Storm Peak Laboratory. Aerosol and Air Quality Research, 2016, 16, 816-826.	0.9	21
62	Dust Impacts of Rapid Agricultural Expansion on the Great Plains. Geophysical Research Letters, 2020, 47, e2020GL090347.	1.5	21
63	Validation of aerosol extinction and water vapor profiles from routine Atmospheric Radiation Measurement Program Climate Research Facility measurements. Journal of Geophysical Research, 2009, 114, .	3.3	20
64	The influence of fog and airmass history on aerosol optical, physical and chemical properties at Pt. Reyes National Seashore. Atmospheric Environment, 2011, 45, 2559-2568.	1.9	19
65	A global modelâ€“measurement evaluation of particle light scattering coefficients at elevated relative humidity. Atmospheric Chemistry and Physics, 2020, 20, 10231-10258.	1.9	19
66	Estimates of mass absorption cross sections of black carbon for filter-based absorption photometers in the Arctic. Atmospheric Measurement Techniques, 2021, 14, 6723-6748.	1.2	19
67	Spatial Representativeness Error in the Groundâ€Level Observation Networks for Black Carbon Radiation Absorption. Geophysical Research Letters, 2018, 45, 2106-2114.	1.5	18
68	Potential origin of organic cloud condensation nuclei observed at marine site. Journal of Geophysical Research, 1997, 102, 21997-22012.	3.3	17
69	An intercomparison of aerosol absorption measurements conducted during the SEAC⁴RS campaign. Aerosol Science and Technology, 2018, 52, 1012-1027.	1.5	17
70	An anomalous African dust event and its impact on aerosol radiative forcing on the Southwest Atlantic coast of Europe in February 2016. Science of the Total Environment, 2017, 583, 269-279.	3.9	16
71	Aerosol Measurements at South Pole: Climatology and Impact of Local Contamination. Aerosol and Air Quality Research, 2016, 16, 855-872.	0.9	16
72	Activation properties of aerosol particles as cloud condensation nuclei at urban and high-altitude remote sites in southern Europe. Science of the Total Environment, 2021, 762, 143100.	3.9	14

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73	Optical, physical, and chemical properties of springtime aerosol over Barrow Alaska in 2008. International Journal of Climatology, 2014, 34, 3125-3138.	1.5	13
74	Climatological study for understanding the aerosol radiative effects at southwest Atlantic coast of Europe. Atmospheric Environment, 2019, 205, 52-66.	1.9	13
75	The influence of chemical heterogeneity among cloud drop populations on processing of chemical species in winter clouds. Atmospheric Research, 1999, 51, 119-140.	1.8	11
76	Variability of Aerosol Optical Properties Observed at a Polluted Marine (Gosan, Korea) and a High-altitude Mountain (Lulin, Taiwan) Site in the Asian Continental Outflow. Aerosol and Air Quality Research, 2019, 19, 1272-1283.	0.9	10
77	Vertical profiles of light absorption and scattering associated with black carbon particle fractions in the springtime Arctic above 79Â°â€‰N. Atmospheric Chemistry and Physics, 2020, 20, 10545-10563.	1.9	9
78	Asian dust signatures at Barrow: observed and simulated. Incursions and impact of Asian dust over Northern Alaska. , 2005, , .		8
79	A global study of hygroscopicity-driven light-scattering enhancement in the context of other in situ aerosol optical properties. Atmospheric Chemistry and Physics, 2021, 21, 13031-13050.	1.9	7
80	Numerical, wind-tunnel, and atmospheric evaluation of a turbulent ground-based inlet sampling system. Aerosol Science and Technology, 2019, 53, 712-727.	1.5	6
81	Aerosol optical properties calculated from size distributions, filter samples and absorption photometer data at Dome C, Antarctica, and their relationships with seasonal cycles of sources. Atmospheric Chemistry and Physics, 2022, 22, 5033-5069.	1.9	3
82	Wintertime aerosol measurements during the Chilean Coastal Orographic Precipitation Experiment. Atmospheric Chemistry and Physics, 2019, 19, 12377-12396.	1.9	2
83	Climatology of Aerosol Optical Properties at Storm Peak Laboratory. Aerosol and Air Quality Research, 2019, 19, 1205-1213.	0.9	1
84	Assessing the radiative impact of aerosol smoke using MODTRAN5. , 2008, , .		0
85	Overview of the Special Issue â€œSelected Papers from the 2nd Atmospheric Chemistry and Physics at Mountain Sites Symposiumâ€• Aerosol and Air Quality Research, 2016, 16, 471-477.	0.9	0
86	Raman Lidar Measurements of Aerosol Profiles Over the Southern Great Plains During the May 2003 Aerosol IOP. , 2005, , .		0