Richard H Moore

List of Publications by Year
in descending order

86 papers	3,344 citations	168829 31 h-index	206121 51 g-index
157 all docs	157 docs citations	157 times ranked	4306 citing authors

#	Article	IF	Citations
1	Large-Eddy Simulations of Marine Boundary Layer Clouds Associated with Cold-Air Outbreaks during the ACTIVATE Campaign. Part I: Case Setup and Sensitivities to Large-Scale Forcings. Journals of the Atmospheric Sciences, 2022, 79, 73-100.	0.6	8
2	Cold Air Outbreaks Promote New Particle Formation Off the U.S. East Coast. Geophysical Research Letters, 2022, 49, .	1.5	9
3	Laser imaging nephelometer for aircraft deployment. Atmospheric Measurement Techniques, 2022, 15, 1093-1105.	1.2	4
4	North Atlantic Ocean SST-gradient-driven variations in aerosol and cloud evolution along Lagrangian cold-air outbreak trajectories. Atmospheric Chemistry and Physics, 2022, 22, 2795-2815.	1.9	4
5	Measurements from inside a Thunderstorm Driven by Wildfire: The 2019 FIREX-AQ Field Experiment. Bulletin of the American Meteorological Society, 2022, , .	1.7	8
6	Polarimeter + Lidarâ€“Derived Aerosol Particle Number Concentration. Frontiers in Remote Sensing, 2022, 3, .	1.3	5
7	Airborne Emission Rate Measurements Validate Remote Sensing Observations and Emission Inventories of Western U.S. Wildfires. Environmental Science & Technology, 2022, 56, 7564-7577.	4.6	15
8	Aircraft-engine particulate matter emissions from conventional and sustainable aviation fuel combustion: comparison of measurement techniques for mass, number, and size. Atmospheric Measurement Techniques, 2022, 15, 3223-3242.	1.2	10
9	Relationships between supermicrometer particle concentrations and cloud water sea salt and dust concentrations: analysis of MONARC and ACTIVATE data. Environmental Science Atmospheres, 2022, 2, 738-752.	0.9	3
10	Dilution of Boundary Layer Cloud Condensation Nucleus Concentrations by Free Tropospheric Entrainment During Marine Cold Air Outbreaks. Geophysical Research Letters, 2022, 49, .	1.5	6
11	Characteristics and evolution of brown carbon in western United States wildfires. Atmospheric Chemistry and Physics, 2022, 22, 8009-8036.	1.9	21
12	Seasonal updraft speeds change cloud droplet number concentrations in low-level clouds over the western North Atlantic. Atmospheric Chemistry and Physics, 2022, 22, 8299-8319.	1.9	9
13	The impact of sampling strategy on the cloud droplet number concentration estimated from satellite data. Atmospheric Measurement Techniques, 2022, 15, 3875-3892.	1.2	15
14	Linking marine phytoplankton emissions, meteorological processes, and downwind particle properties with FLEXPART. Atmospheric Chemistry and Physics, 2021, 21, 831-851.	1.9	15
15	New in situ aerosol hyperspectral optical measurements over 300â€“700â€‰nm â€“ PartÂ1: Spectral Aerosol Extinction (SpEx) instrument field validation during the KORUS-OC cruise. Atmospheric Measurement Techniques, 2021, 14, 695-713.	1.2	6
16	Role of Sea Surface Microlayer Properties in Cloud Formation. Frontiers in Marine Science, 2021, 7, .	1.2	13
17	Airborne extractive electrospray mass spectrometry measurements of the chemical composition of organic aerosol. Atmospheric Measurement Techniques, 2021, 14, 1545-1559.	1.2	20
18	Factors controlling marine aerosol size distributions and their climate effects over the northwest Atlantic Ocean region. Atmospheric Chemistry and Physics, 2021, 21, 1889-1916.	1.9	14

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19	Airborne Measurements of Contrail Ice Propertiesâ€"Dependence on Temperature and Humidity. Geophysical Research Letters, 2021, 48, e2020GL092166.	1.5	16
20	Sizing response of the Ultra-High Sensitivity Aerosol Spectrometer (UHSAS) and Laser Aerosol Spectrometer (LAS) to changes in submicron aerosol composition and refractive index. Atmospheric Measurement Techniques, 2021, 14, 4517-4542.	1.2	28
21	Cleaner burning aviation fuels can reduce contrail cloudiness. Communications Earth & Environment, 2021, 2, .	2.6	92
22	Cloud drop number concentrations over the western North Atlantic Ocean: seasonal cycle, aerosol interrelationships, and other influential factors. Atmospheric Chemistry and Physics, 2021, 21, 10499-10526.	1.9	20
23	Evaluation of simulated cloud liquid water in low clouds over the Beaufort Sea in the Arctic System Reanalysis using ARISE airborne in situ observations. Atmospheric Chemistry and Physics, 2021, 21, 11563-11580.	1.9	1
24	New in situ aerosol hyperspectral optical measurements over 300â€"700â€‰nm â€" PartÂ2: Extinction, total absorption, water- and methanol-soluble absorption observed during the KORUS-OC cruise. Atmospheric Measurement Techniques, 2021, 14, 715-736.	1.2	5
25	New particle formation in the remote marine boundary layer. Nature Communications, 2021, 12, 527.	5.8	45
26	Rapid cloud removal of dimethyl sulfide oxidation products limits SO ₂ and cloud condensation nuclei production in the marine atmosphere. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	28
27	Evaluation of satellite retrievals of liquid clouds from the GOES-13 imager and MODIS over the midlatitude North Atlantic during the NAAMES campaign. Atmospheric Measurement Techniques, 2021, 14, 6633-6646.	1.2	16
28	Nighttime and daytime dark oxidation chemistry in wildfire plumes: an observation and model analysis of FIREX-AQ aircraft data. Atmospheric Chemistry and Physics, 2021, 21, 16293-16317.	1.9	34
29	Aerosol responses to precipitation along North American air trajectories arriving at Bermuda. Atmospheric Chemistry and Physics, 2021, 21, 16121-16141.	1.9	17
30	Machine Learning Uncovers Aerosol Size Information From Chemistry and Meteorology to Quantify Potential Cloudâ€Forming Particles. Geophysical Research Letters, 2021, 48, .	1.5	7
31	Reduced ice number concentrations in contrails from low-aromatic biofuel blends. Atmospheric Chemistry and Physics, 2021, 21, 16817-16826.	1.9	26
32	Reconciling Assumptions in Bottomâ€Up and Topâ€Down Approaches for Estimating Aerosol Emission Rates From Wildland Fires Using Observations From FIREXâ€AQ. Journal of Geophysical Research D: Atmospheres, 2021, 126, .	1.2	10
33	High Temporal Resolution Satellite Observations of Fire Radiative Power Reveal Link Between Fire Behavior and Aerosol and Gas Emissions. Geophysical Research Letters, 2020, 47, e2020GL090707.	1.5	30
34	Wildfire Smoke Particle Properties and Evolution, From Space-Based Multi-Angle Imaging II: The Williams Flats Fire during the FIREX-AQ Campaign. Remote Sensing, 2020, 12, 3823.	1.8	18
35	Coupling an online ion conductivity measurement with the particle-into-liquid sampler: Evaluation and modeling using laboratory and field aerosol data. Aerosol Science and Technology, 2020, 54, 1542-1555.	1.5	5
36	Seasonal Differences and Variability of Concentrations, Chemical Composition, and Cloud Condensation Nuclei of Marine Aerosol Over the North Atlantic. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD033145.	1.2	36

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37	Atmospheric Research Over the Western North Atlantic Ocean Region and North American East Coast: A Review of Past Work and Challenges Ahead. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031626.	1.2	35
38	Observations of Aerosolâ€Cloud Interactions During the North Atlantic Aerosol and Marine Ecosystem Study. Geophysical Research Letters, 2020, 47, e2019GL085851.	1.5	6
39	Ambient Aerosol Hygroscopic Growth From Combined Raman Lidar and HSRL. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031708.	1.2	13
40	Investigation of factors controlling PM2.5 variability across the South Korean Peninsula during KORUS-AQ. Elementa, 2020, 8, .	1.1	44
41	A Laboratory Experiment for the Statistical Evaluation of Aerosol Retrieval (STEAR) Algorithms. Remote Sensing, 2019, 11, 498.	1.8	21
42	Polarimetric retrievals of cloud droplet number concentrations. Remote Sensing of Environment, 2019, 228, 227-240.	4.6	17
43	The North Atlantic Aerosol and Marine Ecosystem Study (NAAMES): Science Motive and Mission Overview. Frontiers in Marine Science, 2019, 6, .	1.2	111
44	Aerosolâ€“Cloudâ€“Meteorology Interaction Airborne Field Investigations: Using Lessons Learned from the U.S. West Coast in the Design of ACTIVATE off the U.S. East Coast. Bulletin of the American Meteorological Society, 2019, 100, 1511-1528.	1.7	51
45	Intercomparison of aerosol volume size distributions derived from AERONET ground-based remote sensing and LARGE in situ aircraft profiles during the 2011â€“2014 DRAGON and DISCOVER-AQ experiments. Atmospheric Measurement Techniques, 2019, 12, 5289-5301.	1.2	9
46	Seasonal Variations in Western North Atlantic Remote Marine Aerosol Properties. Journal of Geophysical Research D: Atmospheres, 2019, 124, 14240-14261.	1.2	29
47	Substantial Seasonal Contribution of Observed Biogenic Sulfate Particles to Cloud Condensation Nuclei. Scientific Reports, 2018, 8, 3235.	1.6	103
48	Impact of Alternative Jet Fuels on Engine Exhaust Composition During the 2015 ECLIF Ground-Based Measurements Campaign. Environmental Science & Technology, 2018, 52, 4969-4978.	4.6	46
49	Retrievals of cloud droplet size from the research scanning polarimeter data: Validation using in situ measurements. Remote Sensing of Environment, 2018, 210, 76-95.	4.6	26
50	Bias and Sensitivity of Boundary Layer Clouds and Surface Radiative Fluxes in MERRA-2 and Airborne Observations Over the Beaufort Sea During the ARISE Campaign. Journal of Geophysical Research D: Atmospheres, 2018, 123, 6565-6580.	1.2	7
51	Development and characterization of a high-efficiency, aircraft-based axial cyclone cloud water collector. Atmospheric Measurement Techniques, 2018, 11, 5025-5048.	1.2	14
52	Biofuel blending reduces particle emissions from aircraft engines at cruise conditions. Nature, 2017, 543, 411-415.	13.7	219
53	Arctic Radiation-IceBridge Sea and Ice Experiment: The Arctic Radiant Energy System during the Critical Seasonal Ice Transition. Bulletin of the American Meteorological Society, 2017, 98, 1399-1426.	1.7	17
54	HSRL-2 aerosol optical measurements and microphysical retrievals vs. airborne in situ measurements during DISCOVER-AQ 2013: an intercomparison study. Atmospheric Chemistry and Physics, 2017, 17, 7229-7243.	1.9	46

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55	Aerosol indirect effects on the nighttime Arctic Ocean surface from thin, predominantly liquid clouds. Atmospheric Chemistry and Physics, 2017, 17, 7311-7332.	1.9	16
56	Take-off engine particle emission indices for in-service aircraft at Los Angeles International Airport. Scientific Data, 2017, 4, 170198.	2.4	15
57	Information content and sensitivity of the 3<i>Î²</i>â€‰+â€¯2<i>Î±</i> lidar measurement system for aerosol microphysical retrievals. Atmospheric Measurement Techniques, 2016, 9, 5555-5574.	1.2	54
58	Observational evidence for the convective transport of dust over the Central United States. Journal of Geophysical Research D: Atmospheres, 2016, 121, 1306-1319.	1.2	23
59	The impacts of aerosol loading, composition, and water uptake on aerosol extinction variability in the Baltimoreâ€“Washington, D.C. region. Atmospheric Chemistry and Physics, 2016, 16, 1003-1015.	1.9	39
60	Airborne observations of bioaerosol over the Southeast United States using a Wideband Integrated Bioaerosol Sensor. Journal of Geophysical Research D: Atmospheres, 2016, 121, 8506-8524.	1.2	40
61	The relationship between cloud condensation nuclei (CCN) concentration and light extinction of dried particles: indications of underlying aerosol processes and implications for satellite-based CCN estimates. Atmospheric Chemistry and Physics, 2015, 15, 7585-7604.	1.9	70
62	Spectral aerosol extinction (SpEx): a new instrument for in situ ambient aerosol extinction measurements across the UV/visible wavelength range. Atmospheric Measurement Techniques, 2015, 8, 4755-4771.	1.2	14
63	Influence of Jet Fuel Composition on Aircraft Engine Emissions: A Synthesis of Aerosol Emissions Data from the NASA APEX, AAFEX, and ACCESS Missions. Energy & Fuels, 2015, 29, 2591-2600.	2.5	71
64	Mapping the Operation of the Miniature Combustion Aerosol Standard (Mini-CAST) Soot Generator. Aerosol Science and Technology, 2014, 48, 467-479.	1.5	94
65	CCN Data Interpretation Under Dynamic Operation Conditions. Aerosol Science and Technology, 2014, 48, 552-561.	1.5	8
66	Factors that influence surface PM_{2.5} values inferred from satellite observations: perspective gained for the US Baltimoreâ€“Washington metropolitan area during DISCOVER-AQ. Atmospheric Chemistry and Physics, 2014, 14, 2139-2153.	1.9	45
67	Constraining the water vapor uptake coefficient in ambient cloud droplet formation. AIP Conference Proceedings, 2013, , .	0.3	2
68	Worldwide data sets constrain the water vapor uptake coefficient in cloud formation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3760-3764.	3.3	29
69	Droplet number uncertainties associated with CCN: an assessment using observations and a global model adjoint. Atmospheric Chemistry and Physics, 2013, 13, 4235-4251.	1.9	58
70	A coupled observation â€“ modeling approach for studying activation kinetics from measurements of CCN activity. Atmospheric Chemistry and Physics, 2012, 12, 4227-4243.	1.9	32
71	Mixing state and compositional effects on CCN activity and droplet growth kinetics of size-resolved CCN in an urban environment. Atmospheric Chemistry and Physics, 2012, 12, 10239-10255.	1.9	49
72	Effect of primary organic sea spray emissions on cloud condensation nuclei concentrations. Atmospheric Chemistry and Physics, 2012, 12, 89-101.	1.9	57

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73	Using a global aerosol model adjoint to unravel the footprint of spatiallyâ€distributed emissions on cloud droplet number and cloud albedo. Geophysical Research Letters, 2012, 39, .	1.5	7
74	CCN Spectra, Hygroscopicity, and Droplet Activation Kinetics of Secondary Organic Aerosol Resulting from the 2010 Deepwater Horizon Oil Spill. Environmental Science & Technology, 2012, 46, 3093-3100.	4.6	32
75	Hygroscopicity and composition of California CCN during summer 2010. Journal of Geophysical Research, 2012, 117, .	3.3	70
76	Impact of Fuel Quality Regulation and Speed Reductions on Shipping Emissions: Implications for Climate and Air Quality. Environmental Science & Technology, 2011, 45, 9052-9060.	4.6	115
77	Cloud condensation nuclei activity of isoprene secondary organic aerosol. Journal of Geophysical Research, 2011, 116, .	3.3	73
78	Airborne cloud condensation nuclei measurements during the 2006 Texas Air Quality Study. Journal of Geophysical Research, 2011, 116, .	3.3	91
79	Characteristics, sources, and transport of aerosols measured in spring 2008 during the aerosol, radiation, and cloud processes affecting Arctic Climate (ARCPAC) Project. Atmospheric Chemistry and Physics, 2011, 11, 2423-2453.	1.9	259
80	Hygroscopicity and composition of Alaskan Arctic CCN during April 2008. Atmospheric Chemistry and Physics, 2011, 11, 11807-11825.	1.9	85
81	Cloud condensation nuclei as a modulator of ice processes in Arctic mixed-phase clouds. Atmospheric Chemistry and Physics, 2011, 11, 8003-8015.	1.9	84
82	Analytics and Beliefs: Competing Explanations for Defining Problems and Choosing Allies and Opponents in Collaborative Environmental Management. Public Administration Review, 2010, 70, 756-766.	2.9	13
83	Scanning Mobility CCN Analysisâ€"A Method for Fast Measurements of Size-Resolved CCN Distributions and Activation Kinetics. Aerosol Science and Technology, 2010, 44, 861-871.	1.5	146
84	Scanning Flow CCN Analysisâ€"A Method for Fast Measurements of CCN Spectra. Aerosol Science and Technology, 2009, 43, 1192-1207.	1.5	68
85	HTDMA analysis of multicomponent dicarboxylic acid aerosols with comparison to UNIFAC and ZSR. Journal of Geophysical Research, 2008, 113, .	3.3	26
86	Molar mass, surface tension, and droplet growth kinetics of marine organics from measurements of CCN activity. Geophysical Research Letters, 2008, 35, .	1.5	68