Ryan C Sullivan

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Volcanic ash ice nucleation activity is variably reduced by aging in water and sulfuric acid: the effects of leaching, dissolution, and precipitation. Environmental Science Atmospheres, 2022, 2, 85-99.	2.4	5
2	Much stronger tundra methane emissions during autumn freeze than spring thaw. Global Change Biology, 2021, 27, 376-387.	9.5	28
3	Atmospheric aging enhances the ice nucleation ability of biomass-burning aerosol. Science Advances, 2021, 7, .	10.3	35
4	Single-particle elemental analysis of vacuum bag dust samples collected from the International Space Station by SEM/EDX and sp-ICP-ToF-MS. Aerosol Science and Technology, 2021, 55, 571-585.	3.1	13
5	Representativeness of Eddy-Covariance flux footprints for areas surrounding AmeriFlux sites. Agricultural and Forest Meteorology, 2021, 301-302, 108350.	4.8	125
6	Aerosolâ€"Ice Formation Closure: A Southern Great Plains Field Campaign. Bulletin of the American Meteorological Society, 2021, 102, E1952-E1971.	3.3	20
7	FLUXNET-CH₄: a global, multi-ecosystem dataset and analysis of methane seasonality from freshwater wetlands. Earth System Science Data, 2021, 13, 3607-3689.	9.9	79
8	Morphology of Organic Carbon Coatings on Biomass-Burning Particles and Their Role in Reactive Gas Uptake. ACS Earth and Space Chemistry, 2021, 5, 2184-2195.	2.7	8
9	Integrating continuous atmospheric boundary layer and tower-based flux measurements to advance understanding of land-atmosphere interactions. Agricultural and Forest Meteorology, 2021, 307, 108509.	4.8	31
10	Response of the Reaction Probability of N₂O₅ with Authentic Biomass-Burning Aerosol to High Relative Humidity. ACS Earth and Space Chemistry, 2021, 5, 2587-2598.	2.7	5
11	Gap-filling eddy covariance methane fluxes: Comparison of machine learning model predictions and uncertainties at FLUXNET-CH4 wetlands. Agricultural and Forest Meteorology, 2021, 308-309, 108528.	4.8	33
12	Metallic and Crustal Elements in Biomass-Burning Aerosol and Ash: Prevalence, Significance, and Similarity to Soil Particles. ACS Earth and Space Chemistry, 2021, 5, 136-148.	2.7	14
13	The International Soil Moisture Network: serving Earth system science for over a decade. Hydrology and Earth System Sciences, 2021, 25, 5749-5804.	4.9	116
14	Development and characterization of a â€œstore and createâ€• microfluidic device to determine the heterogeneous freezing properties of ice nucleating particles. Aerosol Science and Technology, 2020, 54, 79-93.	3.1	18
15	In Situ pH Measurements of Individual Levitated Microdroplets Using Aerosol Optical Tweezers. Analytical Chemistry, 2020, 92, 1089-1096.	6.5	37
16	Aerosol Optical Tweezers Constrain the Morphology Evolution of Liquid-Liquid Phase-Separated Atmospheric Particles. CheM, 2020, 6, 204-220.	11.7	53
17	Aerosol Optical Tweezers Elucidate the Chemistry, Acidity, Phase Separations, and Morphology of Atmospheric Microdroplets. Accounts of Chemical Research, 2020, 53, 2498-2509.	15.6	28
18	Quantifying errors in the aerosol mixing-state index based on limited particle sample size. Aerosol Science and Technology, 2020, 54, 1527-1541.	3.1	2

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19	Biomass combustion produces ice-active minerals in biomass-burning aerosol and bottom ash. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21928-21937.	7.1	27
20	Recovering Evapotranspiration Trends from Biased CMIP5 Simulations and Sensitivity to Changing Climate over North America. Journal of Hydrometeorology, 2019, 20, 1619-1633.	1.9	14
21	Heterogeneous ice nucleation properties of natural desert dust particles coated with a surrogate of secondary organic aerosol. Atmospheric Chemistry and Physics, 2019, 19, 5091-5110.	4.9	40
22	Sensitivity of Simulated Aerosol Properties Over Eastern North America to WRFâ€Chem Parameterizations. Journal of Geophysical Research D: Atmospheres, 2019, 124, 3365-3383.	3.3	18
23	Differences in Eddyâ€Correlation and Energyâ€Balance Surface Turbulent Heat Flux Measurements and Their Impacts on the Largeâ€Scale Forcing Fields at the ARM SGP Site. Journal of Geophysical Research D: Atmospheres, 2019, 124, 3301-3318.	3.3	19
24	Using Ionic Liquids To Study the Migration of Semivolatile Organic Vapors in Smog Chamber Experiments. Journal of Physical Chemistry A, 2019, 123, 3887-3892.	2.5	0
25	Role of Feldspar and Pyroxene Minerals in the Ice Nucleating Ability of Three Volcanic Ashes. ACS Earth and Space Chemistry, 2019, 3, 626-636.	2.7	14
26	Improved Spatiotemporal Representativeness and Bias Reduction of Satelliteâ€Based Evapotranspiration Retrievals via Use of In Situ Meteorology and Constrained Canopy Surface Resistance. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 342-352.	3.0	3
27	N₂O₅reactive uptake kinetics and chlorine activation on authentic biomass-burning aerosol. Environmental Sciences: Processes and Impacts, 2019, 21, 1684-1698.	3.5	14
28	Mass accommodation coefficients of fresh and aged biomass-burning emissions. Aerosol Science and Technology, 2018, 52, 300-309.	3.1	10
29	Production of N₂O₅ and ClNO₂ through Nocturnal Processing of Biomass-Burning Aerosol. Environmental Science & Technology, 2018, 52, 550-559.	10.0	42
30	Cleaning up our water: reducing interferences from nonhomogeneous freezing of â€œpureâ€• water in droplet freezing assays of ice-nucleating particles. Atmospheric Measurement Techniques, 2018, 11, 5315-5334.	3.1	48
31	Spatial Variability of Sources and Mixing State of Atmospheric Particles in a Metropolitan Area. Environmental Science & Technology, 2018, 52, 6807-6815.	10.0	42
32	New particle formation leads to cloud dimming. Npj Climate and Atmospheric Science, 2018, 1, .	6.8	17
33	Emerging investigator series: determination of biphasic coreâ€"shell droplet properties using aerosol optical tweezers. Environmental Sciences: Processes and Impacts, 2018, 20, 1512-1523.	3.5	15
34	Developing and diagnosing climate change indicators of regional aerosol optical properties. Scientific Reports, 2017, 7, 18093.	3.3	14
35	The impact of resolution on meteorological, chemical and aerosol properties in regional simulations with WRF-Chem. Atmospheric Chemistry and Physics, 2017, 17, 1511-1528.	4.9	19
36	A new multicomponent heterogeneous ice nucleation model and its application to Snomax bacterial particles and a Snomaxâ€"illite mineral particle mixture. Atmospheric Chemistry and Physics, 2017, 17, 13545-13557.	4.9	15

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37	Modeling the contributions of global air temperature, synoptic-scale phenomena and soil moisture to near-surface static energy variability using artificial neural networks. Atmospheric Chemistry and Physics, 2017, 17, 14457-14471.	4.9	8
38	Emulsified and Liquidâ€"Liquid Phase-Separated States of Î±-Pinene Secondary Organic Aerosol Determined Using Aerosol Optical Tweezers. Environmental Science & Technology, 2017, 51, 12154-12163.	10.0	57
39	Effect of secondary organic aerosol coating thickness on the real-time detection and characterization of biomass-burning soot by two particle mass spectrometers. Atmospheric Measurement Techniques, 2016, 9, 6117-6137.	3.1	31
40	Empirical estimates of size-resolved precipitation scavenging coefficients for ultrafine particles. Atmospheric Environment, 2016, 143, 133-138.	4.1	17
41	Advanced aerosol optical tweezers chamber design to facilitate phase-separation and equilibration timescale experiments on complex droplets. Aerosol Science and Technology, 2016, 50, 1327-1341.	3.1	43
42	The unstable ice nucleation properties of SnomaxÂ® bacterial particles. Journal of Geophysical Research D: Atmospheres, 2016, 121, 11,666.	3.3	50
43	Mixing of secondary organic aerosols versus relative humidity. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12649-12654.	7.1	93
44	Evaluating the skill of high-resolution WRF-Chem simulations in describing drivers of aerosol direct climate forcing on the regional scale. Atmospheric Chemistry and Physics, 2016, 16, 397-416.	4.9	27
45	Using satelliteâ€based measurements to explore spatiotemporal scales and variability of drivers of new particle formation. Journal of Geophysical Research D: Atmospheres, 2016, 121, 12217-12235.	3.3	5
46	Effect of particle surface area on ice active site densities retrieved from droplet freezing spectra. Atmospheric Chemistry and Physics, 2016, 16, 13359-13378.	4.9	23
47	Dynamic and chemical controls on new particle formation occurrence and characteristics from in situ and satellite-based measurements. Atmospheric Environment, 2016, 127, 316-325.	4.1	4
48	Quantifying the Roles of Changing Albedo, Emissivity, and Energy Partitioning in the Impact of Irrigation on Atmospheric Heat Content. Journal of Applied Meteorology and Climatology, 2016, 55, 1699-1706.	1.5	16
49	Sea spray aerosol as a unique source of ice nucleating particles. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5797-5803.	7.1	323
50	Integrating laboratory and field data to quantify the immersion freezing ice nucleation activity of mineral dust particles. Atmospheric Chemistry and Physics, 2015, 15, 393-409.	4.9	315
51	Spatiotemporal coherence of mean and extreme aerosol particle events over eastern North America as observed from satellite. Atmospheric Environment, 2015, 112, 126-135.	4.1	18
52	Quantifying spatiotemporal variability of fine particles in an urban environment using combined fixed and mobile measurements. Atmospheric Environment, 2014, 89, 664-671.	4.1	26
53	Brownness of organics in aerosols from biomass burning linked to their black carbon content. Nature Geoscience, 2014, 7, 647-650.	12.9	407
54	Influence of Functional Groups on Organic Aerosol Cloud Condensation Nucleus Activity. Environmental Science & Technology, 2014, 48, 10182-10190.	10.0	99

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55	Trace gas emissions from combustion of peat, crop residue, domestic biofuels, grasses, and other fuels: configuration and Fourier transform infrared (FTIR) component of the fourth Fire Lab at Missoula Experiment (FLAME-4). Atmospheric Chemistry and Physics, 2014, 14, 9727-9754.	4.9	188
56	Dust and Biological Aerosols from the Sahara and Asia Influence Precipitation in the Western U.S.. Science, 2013, 339, 1572-1578.	12.6	482
57	Bringing the ocean into the laboratory to probe the chemical complexity of sea spray aerosol. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7550-7555.	7.1	439
58	The common occurrence of highly supercooled drizzle and rain near the coastal regions of the western United States. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9819-9833.	3.3	30
59	Biomass burning as a potential source for atmospheric ice nuclei: Western wildfires and prescribed burns. Geophysical Research Letters, 2012, 39, .	4.0	49
60	Experimental study of the role of physicochemical surface processing on the IN ability of mineral dust particles. Atmospheric Chemistry and Physics, 2011, 11, 11131-11144.	4.9	70
61	Surface modification of mineral dust particles by sulphuric acid processing: implications for ice nucleation abilities. Atmospheric Chemistry and Physics, 2011, 11, 7839-7858.	4.9	60
62	Irreversible loss of ice nucleation active sites in mineral dust particles caused by sulphuric acid condensation. Atmospheric Chemistry and Physics, 2010, 10, 11471-11487.	4.9	175
63	Impact of Particle Generation Method on the Apparent Hygroscopicity of Insoluble Mineral Particles. Aerosol Science and Technology, 2010, 44, 830-846.	3.1	44
64	Timescale for hygroscopic conversion of calcite mineral particles through heterogeneous reaction with nitric acid. Physical Chemistry Chemical Physics, 2009, 11, 7826.	2.8	82
65	Investigations of the Diurnal Cycle and Mixing State of Oxalic Acid in Individual Particles in Asian Aerosol Outflow. Environmental Science & Technology, 2007, 41, 8062-8069.	10.0	167
66	Mineral dust is a sink for chlorine in the marine boundary layer. Atmospheric Environment, 2007, 41, 7166-7179.	4.1	113
67	Characterization of Asian Dust during ACE-Asia. Global and Planetary Change, 2006, 52, 23-56.	3.5	190
68	Recent Advances in Our Understanding of Atmospheric Chemistry and Climate Made Possible by On-Line Aerosol Analysis Instrumentation. Analytical Chemistry, 2005, 77, 3861-3886.	6.5	175