Manish Shrivastava

List of Publications by Year
in descending order

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45 papers	3,036 citations	257450 24 h-index	233421 45 g-index
67 all docs	67 docs citations	67 times ranked	3755 citing authors

#	Article	IF	Citations
1	Recent advances in understanding secondary organic aerosol: Implications for global climate forcing. Reviews of Geophysics, 2017, 55, 509-559.	23.0	548
2	Evaporation kinetics and phase of laboratory and ambient secondary organic aerosol. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2190-2195.	7.1	354
3	Modeling organic aerosols in a megacity: comparison of simple and complex representations of the volatility basis set approach. Atmospheric Chemistry and Physics, 2011, 11, 6639-6662.	4.9	230
4	Global long-range transport and lung cancer risk from polycyclic aromatic hydrocarbons shielded by coatings of organic aerosol. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1246-1251.	7.1	185
5	An Overview of the Atmospheric Component of the Energy Exascale Earth System Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 2377-2411.	3.8	168
6	Urban pollution greatly enhances formation of natural aerosols over the Amazon rainforest. Nature Communications, 2019, 10, 1046.	12.8	131
7	Global transformation and fate of SOA: Implications of lowâ€volatility SOA and gasâ€phase fragmentation reactions. Journal of Geophysical Research D: Atmospheres, 2015, 120, 4169-4195.	3.3	123
8	Synergy between Secondary Organic Aerosols and Long-Range Transport of Polycyclic Aromatic Hydrocarbons. Environmental Science & Technology, 2012, 46, 12459-12466.	10.0	110
9	Overview of the 2010 Carbonaceous Aerosols and Radiative Effects Study (CARES). Atmospheric Chemistry and Physics, 2012, 12, 7647-7687.	4.9	94
10	Climate Forcing and Trends of Organic Aerosols in the Community Earth System Model (CESM2). Journal of Advances in Modeling Earth Systems, 2019, 11, 4323-4351.	3.8	87
11	Aerosols in the E3SM Version 1: New Developments and Their Impacts on Radiative Forcing. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001851.	3.8	68
12	Transport and mixing patterns over Central California during the carbonaceous aerosol and radiative effects study (CARES). Atmospheric Chemistry and Physics, 2012, 12, 1759-1783.	4.9	67
13	Implications of low volatility SOA and gasâ€phase fragmentation reactions on SOA loadings and their spatial and temporal evolution in the atmosphere. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3328-3342.	3.3	66
14	Evaporation Kinetics of Laboratory-Generated Secondary Organic Aerosols at Elevated Relative Humidity. Environmental Science & Technology, 2015, 49, 243-249.	10.0	63
15	Modeling regional aerosol and aerosol precursor variability over California and its sensitivity to emissions and long-range transport during the 2010 CalNex and CARES campaigns. Atmospheric Chemistry and Physics, 2014, 14, 10013-10060.	4.9	62
16	Impact of biomass burning aerosols on radiation, clouds, and precipitation over the Amazon: relative importance of aerosolâ€“cloud and aerosolâ€“radiation interactions. Atmospheric Chemistry and Physics, 2020, 20, 13283-13301.	4.9	59
17	Airborne observations reveal elevational gradient in tropical forest isoprene emissions. Nature Communications, 2017, 8, 15541.	12.8	53
18	High concentration of ultrafine particles in the Amazon free troposphere produced by organic new particle formation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25344-25351.	7.1	49

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19	Organosulfates in aerosols downwind of an urban region in central Amazon. Environmental Sciences: Processes and Impacts, 2018, 20, 1546-1558.	3.5	40
20	A new WRF-Chem treatment for studying regional-scale impacts of cloud processes on aerosol and trace gases in parameterized cumuli. Geoscientific Model Development, 2015, 8, 409-429.	3.6	38
21	Photolysis Controls Atmospheric Budgets of Biogenic Secondary Organic Aerosol. Environmental Science & Technology, 2020, 54, 3861-3870.	10.0	36
22	Sensitivity of biogenic volatile organic compounds to land surface parameterizations and vegetation distributions in California. Geoscientific Model Development, 2016, 9, 1959-1976.	3.6	34
23	Modeling aerosols and their interactions with shallow cumuli during the 2007 CHAPS field study. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1343-1360.	3.3	30
24	Precursors and Pathways Leading to Enhanced Secondary Organic Aerosol Formation during Severe Haze Episodes. Environmental Science & Technology, 2021, 55, 15680-15693.	10.0	28
25	The effect of gas-phase polycyclic aromatic hydrocarbons on the formation and properties of biogenic secondary organic aerosol particles. Faraday Discussions, 2017, 200, 143-164.	3.2	27
26	Improvements to the WRF-Chem 3.5.1 model for quasi-hemispheric simulations of aerosols and ozone in the Arctic. Geoscientific Model Development, 2017, 10, 3661-3677.	3.6	26
27	Modeling particle nucleation and growth over northern California during the 2010 CARES campaign. Atmospheric Chemistry and Physics, 2015, 15, 12283-12313.	4.9	25
28	Model bias in simulating major chemical components of PM_{2.5} in China. Atmospheric Chemistry and Physics, 2020, 20, 12265-12284.	4.9	25
29	Mie Scattering Captures Observed Optical Properties of Ambient Biomass Burning Plumes Assuming Uniform Black, Brown, and Organic Carbon Mixtures. Journal of Geophysical Research D: Atmospheres, 2019, 124, 11406-11427.	3.3	23
30	Rapid growth of anthropogenic organic nanoparticles greatly alters cloud life cycle in the Amazon rainforest. Science Advances, 2022, 8, eabj0329.	10.3	19
31	A Near-Explicit Mechanistic Evaluation of Isoprene Photochemical Secondary Organic Aerosol Formation and Evolution: Simulations of Multiple Chamber Experiments with and without Added NO_x. ACS Earth and Space Chemistry, 2020, 4, 1161-1181.	2.7	16
32	Effective radiative forcing of anthropogenic aerosols in E3SM version 1: historical changes, causality, decomposition, and parameterization sensitivities. Atmospheric Chemistry and Physics, 2022, 22, 9129-9160.	4.9	16
33	Model representations of aerosol layers transported from North America over the Atlantic Ocean during the Twoâ€Column Aerosol Project. Journal of Geophysical Research D: Atmospheres, 2016, 121, 9814-9848.	3.3	15
34	New SOA Treatments Within the Energy Exascale Earth System Model (E3SM): Strong Production and Sinks Govern Atmospheric SOA Distributions and Radiative Forcing. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002266.	3.8	15
35	Process-based and observation-constrained SOA simulations in China: the role of semivolatile and intermediate-volatility organic compounds and OH levels. Atmospheric Chemistry and Physics, 2021, 21, 16183-16201.	4.9	15
36	Impact of Urban Pollution on Organic-Mediated New-Particle Formation and Particle Number Concentration in the Amazon Rainforest. Environmental Science & Technology, 2021, 55, 4357-4367.	10.0	12

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37	Tight Coupling of Surface and In-Plant Biochemistry and Convection Governs Key Fine Particulate Components over the Amazon Rainforest. ACS Earth and Space Chemistry, 2022, 6, 380-390.	2.7	11
38	The striking effect of vertical mixing in the planetary boundary layer on new particle formation in the Yangtze River Delta. Science of the Total Environment, 2022, 829, 154607.	8.0	11
39	Sensitivity analysis of simulated SOA loadings using a varianceâ€based statistical approach. Journal of Advances in Modeling Earth Systems, 2016, 8, 499-519.	3.8	10
40	Exploration of oxidative chemistry and secondary organic aerosol formation in the Amazon during the wet season: explicit modeling of the Manaus urban plume with GECKO-A. Atmospheric Chemistry and Physics, 2020, 20, 5995-6014.	4.9	9
41	Analysis of secondary organic aerosol simulation bias in the Community Earth System Model (CESM2.1). Atmospheric Chemistry and Physics, 2021, 21, 8003-8021.	4.9	9
42	Modeling Volatility-Based Aerosol Phase State Predictions in the Amazon Rainforest. ACS Earth and Space Chemistry, 2021, 5, 2910-2924.	2.7	8
43	Modeling the Size Distribution and Chemical Composition of Secondary Organic Aerosols during the Reactive Uptake of Isoprene-Derived Epoxydiols under Low-Humidity Condition. ACS Earth and Space Chemistry, 2021, 5, 3247-3257.	2.7	7
44	Novel Application of Machine Learning Techniques for Rapid Source Apportionment of Aerosol Mass Spectrometer Datasets. ACS Earth and Space Chemistry, 2022, 6, 932-942.	2.7	6
45	A computationally efficient model to represent the chemistry, thermodynamics, and microphysics of secondary organic aerosols (simpleSOM): model development and application to Î±-pinene SOA. Environmental Science Atmospheres, 2021, 1, 372-394.	2.4	3