

# Nicole Riemer

## List of Publications by Year in descending order

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45  
papers

2,489  
citations

236925

25  
h-index

254184

43  
g-index

69  
all docs

69  
docs citations

69  
times ranked

2676  
citing authors

#	ARTICLE	IF	CITATIONS
1	The acidity of atmospheric particles and clouds. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 4809-4888.	4.9	327
2	Heterogeneous Atmospheric Chemistry, Ambient Measurements, and Model Calculations of $\text{N}_2\text{O}_5$ : A Review. <i>Aerosol Science and Technology</i> , 2011, 45, 665-695.	3.1	212
3	Aerosol Mixing State: Measurements, Modeling, and Impacts. <i>Reviews of Geophysics</i> , 2019, 57, 187-249.	23.0	180
4	Soot aging time scales in polluted regions during day and night. <i>Atmospheric Chemistry and Physics</i> , 2004, 4, 1885-1893.	4.9	166
5	Simulating the evolution of soot mixing state with a particle-resolved aerosol model. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	162
6	Impact of the heterogeneous hydrolysis of $\text{N}_2\text{O}_5$ on chemistry and nitrate aerosol formation in the lower troposphere under photochemical conditions. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	141
7	Estimating black carbon aging time-scales with a particle-resolved aerosol model. <i>Journal of Aerosol Science</i> , 2010, 41, 143-158.	3.8	112
8	Particle-resolved simulation of aerosol size, composition, mixing state, and the associated optical and cloud condensation nuclei activation properties in an evolving urban plume. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	107
9	A conceptual framework for mixing structures in individual aerosol particles. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 13784.	3.3	98
10	Black carbon absorption at the global scale is affected by particle-scale diversity in composition. <i>Nature Communications</i> , 2016, 7, 12361.	12.8	97
11	Modeling aerosols on the mesoscale-1: Treatment of soot aerosol and its radiative effects. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	75
12	Quantifying aerosol mixing state with entropy and diversity measures. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 11423-11439.	4.9	70
13	MADE-in: a new aerosol microphysics submodel for global simulation of insoluble particles and their mixing state. <i>Geoscientific Model Development</i> , 2011, 4, 325-355.	3.6	61
14	Detailed heterogeneous oxidation of soot surfaces in a particle-resolved aerosol model. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 4505-4520.	4.9	49
15	Single particle diversity and mixing state measurements. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 6289-6299.	4.9	49
16	Chemical imaging of ambient aerosol particles: Observational constraints on mixing state parameterization. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 9591-9605.	3.3	49
17	Weighted Flow Algorithms (WFA) for stochastic particle coagulation. <i>Journal of Computational Physics</i> , 2011, 230, 8427-8451.	3.8	47
18	Explaining variance in black carbon's aging timescale. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 3173-3191.	4.9	44

#	ARTICLE	IF	CITATIONS
19	Quantification of black carbon mixing state from traffic: implications for aerosol optical properties. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 4693-4706.	4.9	43
20	Toward Reduced Representation of Mixing State for Simulating Aerosol Effects on Climate. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 971-980.	3.3	39
21	Impacts of black carbon mixing state on black carbon nucleation scavenging: Insights from a particle-resolved model. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	36
22	Metrics to quantify the importance of mixing state for CCN activity. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 7445-7458.	4.9	33
23	The MESSy aerosol submodel MADE3 (v2.0b): description and a box model test. <i>Geoscientific Model Development</i> , 2014, 7, 1137-1157.	3.6	31
24	Modeling the evolution of aerosol particles in a ship plume using PartMC-MOSAIC. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 5327-5347.	4.9	29
25	Urban heat island impacted by fine particles in Nanjing, China. <i>Scientific Reports</i> , 2017, 7, 11422.	3.3	27
26	Black carbon mixing state impacts on cloud microphysical properties: Effects of aerosol plume and environmental conditions. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 5990-6013.	3.3	22
27	A three-dimensional sectional representation of aerosol mixing state for simulating optical properties and cloud condensation nuclei. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 5912-5929.	3.3	21
28	Machine Learning to Predict the Global Distribution of Aerosol Mixing State Metrics. <i>Atmosphere</i> , 2018, 9, 15.	2.3	21
29	Quantifying Impacts of Aerosol Mixing State on Nucleation-Scavenging of Black Carbon Aerosol Particles. <i>Atmosphere</i> , 2018, 9, 17.	2.3	17
30	When is cloud condensation nuclei activity sensitive to particle characteristics at emission?. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 13,476.	3.3	15
31	Estimating Submicron Aerosol Mixing State at the Global Scale With Machine Learning and Earth System Modeling. <i>Earth and Space Science</i> , 2021, 8, e2020EA001500.	2.6	15
32	A single-column particle-resolved model for simulating the vertical distribution of aerosol mixing state: WRF-PartMC-MOSAIC-SCM v1.0. <i>Geoscientific Model Development</i> , 2017, 10, 4057-4079.	3.6	12
33	Simulating aerosol chamber experiments with the particle-resolved aerosol model PartMC. <i>Aerosol Science and Technology</i> , 2017, 51, 856-867.	3.1	10
34	Quantifying the effects of mixing state on aerosol optical properties. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 9265-9282.	4.9	9
35	Water uptake and optical properties of mixed organic-inorganic particles. <i>Aerosol Science and Technology</i> , 2021, 55, 1398-1413.	3.1	8
36	Quantifying the structural uncertainty of the aerosol mixing state representation in a modal model. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 17727-17741.	4.9	8

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37	Accelerated simulation of stochastic particle removal processes in particle-resolved aerosol models. <i>Journal of Computational Physics</i> , 2016, 322, 21-32.	3.8	7
38	Convergence of a generalized Weighted Flow Algorithm for stochastic particle coagulation. <i>Journal of Computational Dynamics</i> , 2018, .	1.1	7
39	Plume-exit modeling to determine cloud condensation nuclei activity of aerosols from residential biofuel combustion. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 9399-9415.	4.9	4
40	Chemistry Across Multiple Phases (CAMP) version 1.0: an integrated multiphase chemistry model. <i>Geoscientific Model Development</i> , 2022, 15, 3663-3689.	3.6	3
41	Mixing state evolution of agglomerating particles in an aerosol chamber: Comparison of measurements and particle-resolved simulations. <i>Aerosol Science and Technology</i> , 2019, 53, 1229-1243.	3.1	2
42	Quantifying errors in the aerosol mixing-state index based on limited particle sample size. <i>Aerosol Science and Technology</i> , 2020, 54, 1527-1541.	3.1	2
43	Sensitivity of Carbonaceous Aerosol Properties to the Implementation of a Dynamic Aging Parameterization in the Regional Climate Model RegCM. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033613.	3.3	1
44	Evaluating the Impacts of Cloud Processing on Resuspended Aerosol Particles After Cloud Evaporation Using a Particle-Resolved Model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD034992.	3.3	0
45	Appreciation of Peer Reviewers for 2021. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	3.3	0