Peter J Adams

List of Publications by Year in descending order

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82 papers	7,642 citations	50170 46 h-index	62479 80 g-index
82 all docs	82 docs citations	82 times ranked	6496 citing authors

#	Article	IF	Citations
1	Formation and cycling of aerosols in the global troposphere. Atmospheric Environment, 2000, 34, 4215-4240.	1.9	386
2	The AeroCom evaluation and intercomparison of organic aerosol in global models. Atmospheric Chemistry and Physics, 2014, 14, 10845-10895.	1.9	363
3	Predicting global aerosol size distributions in general circulation models. Journal of Geophysical Research, 2002, 107, AAC 4-1.	3.3	335
4	Uncertainty in global CCN concentrations from uncertain aerosol nucleation and primary emission rates. Atmospheric Chemistry and Physics, 2009, 9, 1339-1356.	1.9	299
5	Global concentrations of tropospheric sulfate, nitrate, and ammonium aerosol simulated in a general circulation model. Journal of Geophysical Research, 1999, 104, 13791-13823.	3.3	282
6	Sensitivity of PM_{2.5} to climate in the Eastern US: a modeling case study. Atmospheric Chemistry and Physics, 2007, 7, 4295-4309.	1.9	273
7	Ammonia Emission Controls as a Cost-Effective Strategy for Reducing Atmospheric Particulate Matter in the Eastern United States. Environmental Science & Technology, 2007, 41, 380-386.	4.6	251
8	General circulation model assessment of direct radiative forcing by the sulfate-nitrate-ammonium-water inorganic aerosol system. Journal of Geophysical Research, 2001, 106, 1097-1111.	3.3	228
9	Global evaluation of CCN formation by direct emission of sea salt and growth of ultrafine sea salt. Journal of Geophysical Research, 2006, 111, .	3.3	200
10	Unspeciated organic emissions from combustion sources and their influence on the secondary organic aerosol budget in the United States. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10473-10478.	3.3	196
11	Efficiency of cloud condensation nuclei formation from ultrafine particles. Atmospheric Chemistry and Physics, 2007, 7, 1367-1379.	1.9	192
12	Sensitivity of ozone to summertime climate in the eastern USA: A modeling case study. Atmospheric Environment, 2007, 41, 1494-1511.	1.9	182
13	A Preliminary Synthesis of Modeled Climate Change Impacts on U.S. Regional Ozone Concentrations. Bulletin of the American Meteorological Society, 2009, 90, 1843-1864.	1.7	175
14	Climatic effects of 1950â€“2050 changes in US anthropogenic aerosols â€“ Part 1: Aerosol trends and radiative forcing. Atmospheric Chemistry and Physics, 2012, 12, 3333-3348.	1.9	157
15	Interactions between tropospheric chemistry and aerosols in a unified general circulation model. Journal of Geophysical Research, 2003, 108, AAC 1-1.	3.3	152
16	Sensitivity of global tropospheric ozone and fine particulate matter concentrations to climate change. Journal of Geophysical Research, 2006, 111, .	3.3	152
17	Intercomparison and evaluation of global aerosol microphysical properties among AeroCom models of a range of complexity. Atmospheric Chemistry and Physics, 2014, 14, 4679-4713.	1.9	148
18	Modeling global secondary organic aerosol formation and processing with the volatility basis set: Implications for anthropogenic secondary organic aerosol. Journal of Geophysical Research, 2010, 115, .	3.3	145

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19	Climatic effects of 1950â€“2050 changes in US anthropogenic aerosols â€“ Part 2: Climate response. Atmospheric Chemistry and Physics, 2012, 12, 3349-3362.	1.9	136
20	Can cosmic rays affect cloud condensation nuclei by altering new particle formation rates?. Geophysical Research Letters, 2009, 36, .	1.5	134
21	Contribution of brown carbon and lensing to the direct radiative effect of carbonaceous aerosols from biomass and biofuel burning emissions. Journal of Geophysical Research D: Atmospheres, 2015, 120, 10,285.	1.2	134
22	Global radiative forcing of coupled tropospheric ozone and aerosols in a unified general circulation model. Journal of Geophysical Research, 2004, 109, .	3.3	128
23	Contribution of primary carbonaceous aerosol to cloud condensation nuclei: processes and uncertainties evaluated with a global aerosol microphysics model. Atmospheric Chemistry and Physics, 2007, 7, 5447-5466.	1.9	118
24	Public Health Costs of Primary PM_{2.5} and Inorganic PM_{2.5} Precursor Emissions in the United States. Environmental Science & Technology, 2016, 50, 6061-6070.	4.6	106
25	Air pollutant emissions from the development, production, and processing of Marcellus Shale natural gas. Journal of the Air and Waste Management Association, 2014, 64, 19-37.	0.9	104
26	Why do organic aerosols exist? Understanding aerosol lifetimes using the two-dimensional volatility basis set. Environmental Chemistry, 2013, 10, 151.	0.7	103
27	Reduced-form modeling of public health impacts of inorganic PM 2.5 and precursor emissions. Atmospheric Environment, 2016, 137, 80-89.	1.9	99
28	Temporally resolved ammonia emission inventories: Current estimates, evaluation tools, and measurement needs. Journal of Geophysical Research, 2006, 111, .	3.3	95
29	Disproportionate impact of particulate emissions on global cloud condensation nuclei concentrations. Geophysical Research Letters, 2003, 30, n/a-n/a.	1.5	90
30	Constraining Particle Evolution from Wall Losses, Coagulation, and Condensation-Evaporation in Smog-Chamber Experiments: Optimal Estimation Based on Size Distribution Measurements. Aerosol Science and Technology, 2008, 42, 1001-1015.	1.5	90
31	Formation and growth of nucleated particles into cloud condensation nuclei: modelâ€“measurement comparison. Atmospheric Chemistry and Physics, 2013, 13, 7645-7663.	1.9	87
32	Will black carbon mitigation dampen aerosol indirect forcing?. Geophysical Research Letters, 2010, 37, .	1.5	86
33	The influence of semi-volatile and reactive primary emissions on the abundance and properties of global organic aerosol. Atmospheric Chemistry and Physics, 2011, 11, 7727-7746.	1.9	86
34	A temporally and spatially resolved ammonia emission inventory for dairy cows in the United States. Atmospheric Environment, 2004, 38, 3747-3756.	1.9	82
35	A process-based model of ammonia emissions from dairy cows: improved temporal and spatial resolution. Atmospheric Environment, 2004, 38, 1357-1365.	1.9	79
36	Elicitation of Expert Judgments of Aerosol Forcing. Climatic Change, 2006, 75, 195-214.	1.7	75

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37	The response of surface ozone to climate change over the Eastern United States. Atmospheric Chemistry and Physics, 2008, 8, 871-885.	1.9	75
38	Variation in Estimated Ozone-Related Health Impacts of Climate Change due to Modeling Choices and Assumptions. Environmental Health Perspectives, 2012, 120, 1559-1564.	2.8	74
39	Simulating the size distribution and chemical composition of ultrafine particles during nucleation events. Atmospheric Environment, 2006, 40, 2248-2259.	1.9	73
40	Secondary Organic Aerosol Formation from Photo-Oxidation of Unburned Fuel: Experimental Results and Implications for Aerosol Formation from Combustion Emissions. Environmental Science & Technology, 2013, 47, 12886-12893.	4.6	73
41	Analysis of feedbacks between nucleation rate, survival probability and cloud condensation nuclei formation. Atmospheric Chemistry and Physics, 2014, 14, 5577-5597.	1.9	72
42	Tropospheric aerosol microphysics simulation with assimilated meteorology: model description and intermodel comparison. Atmospheric Chemistry and Physics, 2008, 8, 3149-3168.	1.9	70
43	Air qualityâ€“related health damages of food. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	70
44	An inter-comparison of the social costs of air quality from reduced-complexity models. Environmental Research Letters, 2019, 14, 074016.	2.2	66
45	Development of a global model of mineral dust aerosol microphysics. Atmospheric Chemistry and Physics, 2009, 9, 2441-2458.	1.9	61
46	Simulation of in situ ultrafine particle formation in the eastern United States using PMCAMxâ€UF. Journal of Geophysical Research, 2010, 115, .	3.3	60
47	Effect of primary organic sea spray emissions on cloud condensation nuclei concentrations. Atmospheric Chemistry and Physics, 2012, 12, 89-101.	1.9	57
48	A Fast and Efficient Version of the TwO-Moment Aerosol Sectional (TOMAS) Global Aerosol Microphysics Model. Aerosol Science and Technology, 2012, 46, 678-689.	1.5	54
49	New particle formation and growth in biomass burning plumes: An important source of cloud condensation nuclei. Geophysical Research Letters, 2012, 39, .	1.5	54
50	Effect of Model Spatial Resolution on Estimates of Fine Particulate Matter Exposure and Exposure Disparities in the United States. Environmental Science and Technology Letters, 2018, 5, 436-441.	3.9	54
51	A Computationally Efficient Aerosol Nucleation/ Condensation Method: Pseudo-Steady-State Sulfuric Acid. Aerosol Science and Technology, 2009, 43, 216-226.	1.5	53
52	Impacts of climate change on regional and urban air quality in the eastern United States: Role of meteorology. Journal of Geophysical Research, 2009, 114, .	3.3	53
53	A simple model of global aerosol indirect effects. Journal of Geophysical Research D: Atmospheres, 2013, 118, 6688-6707.	1.2	53
54	Evaluation of aerosol distributions in the GISS-TOMAS global aerosol microphysics model with remote sensing observations. Atmospheric Chemistry and Physics, 2010, 10, 2129-2144.	1.9	50

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55	Evaluation of Nucleation Theories in a Sulfur-Rich Environment. Aerosol Science and Technology, 2008, 42, 495-504.	1.5	47
56	Cloud condensation nuclei prediction error from application of KÃ¶hler theory: Importance for the aerosol indirect effect. Journal of Geophysical Research, 2007, 112, .	3.3	44
57	Representation of nucleation mode microphysics in a global aerosol model with sectional microphysics. Geoscientific Model Development, 2013, 6, 1221-1232.	1.3	40
58	U.S. Ozone Air Quality under Changing Climate and Anthropogenic Emissions. Environmental Science & Technology, 2009, 43, 571-577.	4.6	39
59	Parameterization of the effect of sub-grid scale aerosol dynamics on aerosol number emission rates. Journal of Aerosol Science, 2009, 40, 385-393.	1.8	34
60	Simulating present-day and future air quality as climate changes: Model evaluation. Atmospheric Environment, 2008, 42, 4551-4566.	1.9	30
61	Public health costs accounting of inorganic PM2.5 pollution in metropolitan areas of the United States using a risk-based source-receptor model. Environment International, 2017, 106, 119-126.	4.8	30
62	Modeling the formation and properties of traditional and non-traditional secondary organic aerosol: problem formulation and application to aircraft exhaust. Atmospheric Chemistry and Physics, 2012, 12, 9025-9040.	1.9	28
63	Global climate response to anthropogenic aerosol indirect effects: Present day and year 2100. Journal of Geophysical Research, 2010, 115, .	3.3	26
64	Evaluation of the global aerosol microphysical ModelE2-TOMAS model against satellite and ground-based observations. Geoscientific Model Development, 2015, 8, 631-667.	1.3	26
65	Quantification of the effects of molecular marker oxidation on source apportionment estimates for motor vehicles. Atmospheric Environment, 2011, 45, 3132-3140.	1.9	24
66	Impact of natural gas development in the Marcellus and Utica shales on regional ozone and fine particulate matter levels. Atmospheric Environment, 2017, 155, 11-20.	1.9	22
67	The Costs, Air Quality, and Human Health Effects of Meeting Peak Electricity Demand with Installed Backup Generators. Environmental Science & Technology, 2006, 40, 6887-6893.	4.6	21
68	Testing secondary organic aerosol models using smog chamber data for complex precursor mixtures: influence of precursor volatility and molecular structure. Atmospheric Chemistry and Physics, 2014, 14, 5771-5780.	1.9	20
69	The air quality and human health effects of integrating utility-scale batteries into the New York State electricity grid. Journal of Power Sources, 2010, 195, 2405-2413.	4.0	18
70	Semi-empirical process-based models for ammonia emissions from beef, swine, and poultry operations in the United States. Atmospheric Environment, 2015, 120, 127-136.	1.9	18
71	The food we eat, the air we breathe: a review of the fine particulate matter-induced air quality health impacts of the global food system. Environmental Research Letters, 2021, 16, 103004.	2.2	17
72	Using Backup Generators for Meeting Peak Electricity Demand: A Sensitivity Analysis on Emission Controls, Location, and Health Endpoints. Journal of the Air and Waste Management Association, 2010, 60, 523-531.	0.9	15

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73	Chlorine Truck Attack Consequences and Mitigation. Risk Analysis, 2011, 31, 1243-1259.	1.5	12
74	Impact of climate change on mercury concentrations and deposition in the eastern United States. Science of the Total Environment, 2014, 487, 299-312.	3.9	11
75	Implications of Ammonia Emissions from Post-Combustion Carbon Capture for Airborne Particulate Matter. Environmental Science & Technology, 2015, 49, 5142-5150.	4.6	11
76	Importance of composition and hygroscopicity of BC particles to the effect of BC mitigation on cloud properties: Application to California conditions. Journal of Geophysical Research, 2012, 117, .	3.3	8
77	Atmospheric nanoparticles and climate change. AICHE Journal, 2013, 59, 4006-4019.	1.8	8
78	Does the POAâ€“SOA split matter for global CCN formation?. Atmospheric Chemistry and Physics, 2014, 14, 995-1010.	1.9	6
79	Computational Analysis of Particle Nucleation in Dilution Tunnels: Effects of Flow Configuration and Tunnel Geometry. Aerosol Science and Technology, 2014, 48, 638-648.	1.5	5
80	Where Did This Particle Come From? Sources of Particle Number and Mass for Human Exposure Estimates. Issues in Environmental Science and Technology, 2016, , 35-71.	0.4	5
81	Air Quality in a Changing Climate. Environmental Health Perspectives, 2011, 119, A154-5.	2.8	4
82	Simulations of vehicle-induced mixing and near-road aerosol microphysics using computational fluid dynamics. AIMS Environmental Science, 2018, 5, 315-339.	0.7	3