Ulrike Lohmann

List of Publications by Year
in descending order

323 papers	33,724 citations	6254 80 h-index	5829 161 g-index
472 all docs	472 docs citations	472 times ranked	17043 citing authors

#	Article	IF	Citations
1	Bounding the role of black carbon in the climate system: A scientific assessment. Journal of Geophysical Research D: Atmospheres, 2013, 118, 5380-5552.	3.3	4,319
2	Global indirect aerosol effects: a review. Atmospheric Chemistry and Physics, 2005, 5, 715-737.	4.9	2,261
3	Flood or Drought: How Do Aerosols Affect Precipitation?. Science, 2008, 321, 1309-1313.	12.6	1,682
4	Atmospheric component of the MPIâ€M Earth System Model: ECHAM6. Journal of Advances in Modeling Earth Systems, 2013, 5, 146-172.	3.8	1,044
5	An AeroCom initial assessment â€“ optical properties in aerosol component modules of global models. Atmospheric Chemistry and Physics, 2006, 6, 1815-1834.	4.9	697
6	The effect of physical and chemical aerosol properties on warm cloud droplet activation. Atmospheric Chemistry and Physics, 2006, 6, 2593-2649.	4.9	690
7	Particulate matter, air quality and climate: lessons learned and future needs. Atmospheric Chemistry and Physics, 2015, 15, 8217-8299.	4.9	641
8	Critical assessment of the current state of scientific knowledge, terminology, and research needs concerning the role of organic aerosols in the atmosphere, climate, and global change. Atmospheric Chemistry and Physics, 2006, 6, 2017-2038.	4.9	447
9	Bounding Global Aerosol Radiative Forcing of Climate Change. Reviews of Geophysics, 2020, 58, e2019RG000660.	23.0	424
10	Aerosol indirect effects â€“ general circulation model intercomparison and evaluation with satellite data. Atmospheric Chemistry and Physics, 2009, 9, 8697-8717.	4.9	418
11	Cloud microphysics and aerosol indirect effects in the global climate model ECHAM5-HAM. Atmospheric Chemistry and Physics, 2007, 7, 3425-3446.	4.9	385
12	Tropical Rainfall Trends and the Indirect Aerosol Effect. Journal of Climate, 2002, 15, 2103-2116.	3.2	363
13	Design and performance of a new cloud microphysics scheme developed for the ECHAM general circulation model. Climate Dynamics, 1996, 12, 557-572.	3.8	359
14	The global aerosol-climate model ECHAM-HAM, version 2: sensitivity to improvements in process representations. Atmospheric Chemistry and Physics, 2012, 12, 8911-8949.	4.9	319
15	A study of internal and external mixing scenarios and its effect on aerosol optical properties and direct radiative forcing. Journal of Geophysical Research, 2002, 107, AAC 5-1-AAC 5-12.	3.3	284
16	Prediction of the number of cloud droplets in the ECHAM GCM. Journal of Geophysical Research, 1999, 104, 9169-9198.	3.3	283
17	General overview: European Integrated project on Aerosol Cloud Climate and Air Quality interactions (EUCAARI) â€“ integrating aerosol research from nano to global scales. Atmospheric Chemistry and Physics, 2011, 11, 13061-13143.	4.9	278
18	Online coupled regional meteorology chemistry models in Europe: current status and prospects. Atmospheric Chemistry and Physics, 2014, 14, 317-398.	4.9	271

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19	Energy budget constraints on climate response. Nature Geoscience, 2013, 6, 415-416.	12.9	270
20	Canadian Aerosol Module: A size-segregated simulation of atmospheric aerosol processes for climate and air quality models 1. Module development. Journal of Geophysical Research, 2003, 108, AAC 3-1.	3.3	267
21	Coatings and their enhancement of black carbon light absorption in the tropical atmosphere. Journal of Geophysical Research, 2008, 113, .	3.3	266
22	Monthly averages of aerosol properties: A global comparison among models, satellite data, and AERONET ground data. Journal of Geophysical Research, 2003, 108, .	3.3	258
23	Comparing clouds and their seasonal variations in 10 atmospheric general circulation models with satellite measurements. Journal of Geophysical Research, 2005, 110, .	3.3	250
24	The sulfate-CCN-cloud albedo effect.. Tellus, Series B: Chemical and Physical Meteorology, 1995, 47, 281-300.	1.6	249
25	Solid Ammonium Sulfate Aerosols as Ice Nuclei: A Pathway for Cirrus Cloud Formation. Science, 2006, 313, 1770-1773.	12.6	247
26	Sensitivity Studies of the Importance of Dust Ice Nuclei for the Indirect Aerosol Effect on Stratiform Mixed-Phase Clouds. Journals of the Atmospheric Sciences, 2006, 63, 968-982.	1.7	247
27	Atmospheric composition change: Climateâ€"Chemistry interactions. Atmospheric Environment, 2009, 43, 5138-5192.	4.1	243
28	A parameterization of cirrus cloud formation: Heterogeneous freezing. Journal of Geophysical Research, 2003, 108, .	3.3	236
29	A parameterization of cirrus cloud formation: Homogeneous freezing of supercooled aerosols. Journal of Geophysical Research, 2002, 107, AAC 4-1.	3.3	223
30	Global model simulations of the impact of ocean-going ships on aerosols, clouds, and the radiation budget. Atmospheric Chemistry and Physics, 2007, 7, 5061-5079.	4.9	207
31	Constraining the total aerosol indirect effect in the LMDZ and ECHAM4 GCMs using MODIS satellite data. Atmospheric Chemistry and Physics, 2006, 6, 947-955.	4.9	198
32	The sulfate-CCN-cloud albedo effect: A sensitivity study with two general circulation models. Tellus, Series B: Chemical and Physical Meteorology, 2022, 47, 281.	1.6	196
33	A glaciation indirect aerosol effect caused by soot aerosols. Geophysical Research Letters, 2002, 29, 11-1.	4.0	196
34	Can aerosols spin down the water cycle in a warmer and moister world?. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	196
35	Aerosol nucleation and its role for clouds and Earth's radiative forcing in the aerosol-climate model ECHAM5-HAM. Atmospheric Chemistry and Physics, 2010, 10, 10733-10752.	4.9	190
36	Total aerosol effect: radiative forcing or radiative flux perturbation?. Atmospheric Chemistry and Physics, 2010, 10, 3235-3246.	4.9	184

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37	Indirect effect of sulfate and carbonaceous aerosols: A mechanistic treatment. Journal of Geophysical Research, 2000, 105, 12193-12206.	3.3	183
38	Stronger Constraints on the Anthropogenic Indirect Aerosol Effect. Science, 2002, 298, 1012-1015.	12.6	179
39	Sensitivity studies of different aerosol indirect effects in mixed-phase clouds. Atmospheric Chemistry and Physics, 2009, 9, 8917-8934.	4.9	175
40	Impact of sulfate aerosols on albedo and lifetime of clouds: A sensitivity study with the ECHAM4 GCM. Journal of Geophysical Research, 1997, 102, 13685-13700.	3.3	174
41	Influence of particle size on the ice nucleating ability of mineral dusts. Atmospheric Chemistry and Physics, 2009, 9, 6705-6715.	4.9	173
42	Interpreting the cloud cover â€" aerosol optical depth relationship found in satellite data using a general circulation model. Atmospheric Chemistry and Physics, 2010, 10, 6129-6135.	4.9	169
43	Mixed-Phase Clouds: Progress and Challenges. Meteorological Monographs, 2017, 58, 5.1-5.50.	5.0	165
44	Physically based parameterization of cirrus cloud formation for use in global atmospheric models. Journal of Geophysical Research, 2006, 111, .	3.3	159
45	Experimental study on the ice nucleation ability of sizeâ€selected kaolinite particles in the immersion mode. Journal of Geophysical Research, 2010, 115, .	3.3	158
46	Sensitivity of aerosol concentrations and cloud properties to nucleation and secondary organic distribution in ECHAM5-HAM global circulation model. Atmospheric Chemistry and Physics, 2009, 9, 1747-1766.	4.9	153
47	Classical nucleation theory of homogeneous freezing of water: thermodynamic and kinetic parameters. Physical Chemistry Chemical Physics, 2015, 17, 5514-5537.	2.8	151
48	The global influence of dust mineralogical composition on heterogeneous ice nucleation in mixed-phase clouds. Environmental Research Letters, 2008, 3, 025003.	5.2	149
49	Freezing thresholds and cirrus cloud formation mechanisms inferred from in situ measurements of relative humidity. Atmospheric Chemistry and Physics, 2003, 3, 1791-1806.	4.9	148
50	Oxalic acid as a heterogeneous ice nucleus in the upper troposphere and its indirect aerosol effect. Atmospheric Chemistry and Physics, 2006, 6, 3115-3129.	4.9	145
51	Technical Note: On the use of nudging for aerosolâ€"climate model intercomparison studies. Atmospheric Chemistry and Physics, 2014, 14, 8631-8645.	4.9	143
52	Nonlinear Aspects of the Climate Response to Greenhouse Gas and Aerosol Forcing. Journal of Climate, 2004, 17, 2384-2398.	3.2	142
53	CGILS: Results from the first phase of an international project to understand the physical mechanisms of low cloud feedbacks in single column models. Journal of Advances in Modeling Earth Systems, 2013, 5, 826-842.	3.8	140
54	Can the direct and semi-direct aerosol effect compete with the indirect effect on a global scale?. Geophysical Research Letters, 2001, 28, 159-161.	4.0	139

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55	Aerosol size-dependent below-cloud scavenging by rain and snow in the ECHAM5-HAM. Atmospheric Chemistry and Physics, 2009, 9, 4653-4675.	4.9	129
56	Ice nuclei properties within a Saharan dust event at the Jungfraujoch in the Swiss Alps. Atmospheric Chemistry and Physics, 2011, 11, 4725-4738.	4.9	128
57	Possible Aerosol Effects on Ice Clouds via Contact Nucleation. Journals of the Atmospheric Sciences, 2002, 59, 647-656.	1.7	126
58	Intercomparison of the cloud water phase among global climate models. Journal of Geophysical Research D: Atmospheres, 2014, 119, 3372-3400.	3.3	126
59	Fire in the Air: Biomass Burning Impacts in a Changing Climate. Critical Reviews in Environmental Science and Technology, 2013, 43, 40-83.	12.8	125
60	The Zurich Ice Nucleation Chamber (ZINC)-A New Instrument to Investigate Atmospheric Ice Formation. Aerosol Science and Technology, 2008, 42, 64-74.	3.1	123
61	Challenges in constraining anthropogenic aerosol effects on cloud radiative forcing using present-day spatiotemporal variability. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5804-5811.	7.1	120
62	Intercomparison and evaluation of cumulus parametrizations under summertime midlatitude continental conditions. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 1095-1135.	2.7	119
63	A Parameterization of cirrus cloud formation: Homogeneous freezing including effects of aerosol size. Journal of Geophysical Research, 2002, 107, AAC 9-1-AAC 9-10.	3.3	118
64	Climate impacts of ice nucleation. Journal of Geophysical Research, 2012, 117, .	3.3	118
65	First interactive simulations of cirrus clouds formed by homogeneous freezing in the ECHAM general circulation model. Journal of Geophysical Research, 2002, 107, AAC 8-1-AAC 8-13.	3.3	114
66	Pore condensation and freezing is responsible for ice formation below water saturation for porous particles. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 8184-8189.	7.1	113
67	The atmospheric sulfur cycle in ECHAM-4 and its impact on the shortwave radiation. Climate Dynamics, 1997, 13, 235-246.	3.8	109
68	Influences of in-cloud aerosol scavenging parameterizations on aerosol concentrations and wet deposition in ECHAM5-HAM. Atmospheric Chemistry and Physics, 2010, 10, 1511-1543.	4.9	109
69	A comparison of single column model simulations of summertime midlatitude continental convection. Journal of Geophysical Research, 2000, 105, 2091-2124.	3.3	107
70	A GCM study of future climate response to aerosol pollution reductions. Climate Dynamics, 2010, 34, 1177-1194.	3.8	106
71	Aerosol Influence on Mixed-Phase Clouds in CAM-Oslo. Journals of the Atmospheric Sciences, 2008, 65, 3214-3230.	1.7	105
72	Time dependence of immersion freezing: an experimental study on size selected kaolinite particles. Atmospheric Chemistry and Physics, 2012, 12, 9893-9907.	4.9	105

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73	The global aerosolâ€“climate model ECHAM6.3â€“HAM2.3 â€“ Part 1: Aerosol evaluation. Geoscientific Model Development, 2019, 12, 1643-1677.	3.6	103
74	A concept for a satellite mission to measure cloud ice water path, ice particle size, and cloud altitude. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 109-128.	2.7	100
75	Water uptake of clay and desert dust aerosol particles at sub- and supersaturated water vapor conditions. Physical Chemistry Chemical Physics, 2009, 11, 7804.	2.8	100
76	Contact freezing: a review of experimental studies. Atmospheric Chemistry and Physics, 2013, 13, 9745-9769.	4.9	100
77	Ice nucleation efficiency of AgI: review and new insights. Atmospheric Chemistry and Physics, 2016, 16, 8915-8937.	4.9	100
78	Marine and Terrestrial Organic Iceâ€Nucleating Particles in Pristine Marine to Continentally Influenced Northeast Atlantic Air Masses. Journal of Geophysical Research D: Atmospheres, 2018, 123, 6196-6212.	3.3	98
79	Heterogeneous ice nucleation on dust particles sourced from nineÂdeserts worldwide â€“ Part 1: Immersion freezing. Atmospheric Chemistry and Physics, 2016, 16, 15075-15095.	4.9	97
80	A Comparison of Model- and Satellite-Derived Aerosol Optical Depth and Reflectivity. Journals of the Atmospheric Sciences, 2002, 59, 441-460.	1.7	96
81	Cirrus cloud formation and ice supersaturated regions in a global climate model. Environmental Research Letters, 2008, 3, 045022.	5.2	94
82	Cirrus Clouds. Meteorological Monographs, 2017, 58, 2.1-2.26.	5.0	94
83	Ice nucleating particles in the Saharan Air Layer. Atmospheric Chemistry and Physics, 2016, 16, 9067-9087.	4.9	93
84	Black carbon ageing in the Canadian Centre for Climate modelling and analysis atmospheric general circulation model. Atmospheric Chemistry and Physics, 2005, 5, 1931-1949.	4.9	91
85	Characterization of the aerosol over the sub-arctic north east Pacific Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2006, 53, 2410-2433.	1.4	91
86	Inadvertent climate modification due to anthropogenic lead. Nature Geoscience, 2009, 2, 333-336.	12.9	91
87	Sensitivity study of the spectral dispersion of the cloud droplet size distribution on the indirect aerosol effect. Geophysical Research Letters, 2003, 30, n/a-n/a.	4.0	90
88	Disentangling greenhouse warming and aerosol cooling to reveal Earthâ€™s climate sensitivity. Nature Geoscience, 2016, 9, 286-289.	12.9	86
89	Ice Nucleation Studies of Mineral Dust Particles with a New Continuous Flow Diffusion Chamber. Aerosol Science and Technology, 2006, 40, 134-143.	3.1	85
90	Cloud condensation nuclei closure study on summer arctic aerosol. Atmospheric Chemistry and Physics, 2011, 11, 11335-11350.	4.9	85

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91	Effects of ice nuclei on cirrus clouds in a global climate model. Journal of Geophysical Research, 2011, 116, .	3.3	83
92	Impact of parametric uncertainties on the present-day climate and on the anthropogenic aerosol effect. Atmospheric Chemistry and Physics, 2010, 10, 11373-11383.	4.9	81
93	Evaluation of the aerosol vertical distribution in global aerosol models through comparison against CALIOP measurements: AeroCom phase II results. Journal of Geophysical Research D: Atmospheres, 2016, 121, 7254-7283.	3.3	80
94	Impact of ice supersaturated regions and thin cirrus on radiation in the midlatitudes. Journal of Geophysical Research, 2007, 112, .	3.3	79
95	Hygroscopic properties of fresh and aged wood burning particles. Journal of Aerosol Science, 2013, 56, 15-29.	3.8	78
96	The potential influence of Asian and African mineral dust on ice, mixed-phase and liquid water clouds. Atmospheric Chemistry and Physics, 2010, 10, 8649-8667.	4.9	77
97	Laboratory studies of immersion and deposition mode ice nucleation of ozone aged mineral dust particles. Atmospheric Chemistry and Physics, 2013, 13, 9097-9118.	4.9	77
98	Dust ice nuclei effects on cirrus clouds. Atmospheric Chemistry and Physics, 2014, 14, 3027-3046.	4.9	77
99	Constraining the instantaneous aerosol influence on cloud albedo. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4899-4904.	7.1	77
100	Simulating the global atmospheric black carbon cycle: a revisit to the contribution of aircraft emissions. Atmospheric Chemistry and Physics, 2004, 4, 2521-2541.	4.9	76
101	Bacteria in the ECHAM5-HAM global climate model. Atmospheric Chemistry and Physics, 2012, 12, 8645-8661.	4.9	76
102	Influence of cirrus cloud radiative forcing on climate and climate sensitivity in a general circulation model. Journal of Geophysical Research, 1995, 100, 16305.	3.3	72
103	Global simulations of aerosol processing in clouds. Atmospheric Chemistry and Physics, 2008, 8, 6939-6963.	4.9	71
104	Global anthropogenic aerosol effects on convective clouds in ECHAM5-HAM. Atmospheric Chemistry and Physics, 2008, 8, 2115-2131.	4.9	70
105	The cloud albedo-cloud droplet effective radius relationship for clean and polluted clouds from RACE and FIRE.ACE. Journal of Geophysical Research, 2002, 107, AAC 1-1-AAC 1-6.	3.3	68
106	Aerosol indirect effect over the Indian Ocean. Geophysical Research Letters, 2006, 33, .	4.0	67
107	Sensitivity Studies of Aerosolâ€"Cloud Interactions in Mixed-Phase Orographic Precipitation. Journals of the Atmospheric Sciences, 2009, 66, 2517-2538.	1.7	67
108	On the characteristics of aerosol indirect effect based on dynamic regimes in global climate models. Atmospheric Chemistry and Physics, 2016, 16, 2765-2783.	4.9	67

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109	Ice nucleation abilities of soot particles determined with the Horizontal Ice Nucleation Chamber. Atmospheric Chemistry and Physics, 2018, 18, 13363-13392.	4.9	67
110	Contribution of Changes in Sea Surface Temperature and Aerosol Loading to the Decreasing Precipitation Trend in Southern China. Journal of Climate, 2005, 18, 1381-1390.	3.2	66
111	Simulations of midlatitude frontal clouds by single-column and cloud-resolving models during the Atmospheric Radiation Measurement March 2000 cloud intensive operational period. Journal of Geophysical Research, 2005, 110, .	3.3	66
112	Different Approaches for Constraining Global Climate Models of the Anthropogenic Indirect Aerosol Effect. Bulletin of the American Meteorological Society, 2007, 88, 243-250.	3.3	66
113	Design and performance of a new cloud microphysics scheme developed for the ECHAM general circulation model. Climate Dynamics, 1996, 12, 557-572.	3.8	66
114	A cirrus cloud climate dial?. Science, 2017, 357, 248-249.	12.6	65
115	Comparing Different Cloud Schemes of a Single Column Model by Using Mesoscale Forcing and Nudging Technique. Journal of Climate, 1999, 12, 438-461.	3.2	64
116	Simulation of the tropospheric sulfur cycle in a global model with a physically based cloud scheme. Journal of Geophysical Research, 2002, 107, AAC 20-1-AAC 20-21.	3.3	64
117	High-Cloud Horizontal Inhomogeneity and Solar Albedo Bias. Journal of Climate, 2002, 15, 2321-2339.	3.2	63
118	Importance of vertical velocity variations in the cloud droplet nucleation process of marine stratus clouds. Journal of Geophysical Research, 2005, 110, .	3.3	63
119	A comparison of large-scale atmospheric sulphate aerosol models (COSAM): overview and highlights. Tellus, Series B: Chemical and Physical Meteorology, 2001, 53, 615-645.	1.6	62
120	Do aircraft black carbon emissions affect cirrus clouds on the global scale?. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	61
121	Effects of stratospheric sulfate aerosol geoâ€engineering on cirrus clouds. Geophysical Research Letters, 2012, 39, .	4.0	61
122	Importance of submicron surface-active organic aerosols for pristine Arctic clouds. Tellus, Series B: Chemical and Physical Meteorology, 2005, 57, 261-268.	1.6	60
123	Evaluation of global simulations of aerosol particle and cloud condensation nuclei number, with implications for cloud droplet formation. Atmospheric Chemistry and Physics, 2019, 19, 8591-8617.	4.9	60
124	Mass spectrometry of refractory black carbon particles from six sources: carbon-cluster and oxygenated ions. Atmospheric Chemistry and Physics, 2014, 14, 2591-2603.	4.9	59
125	Ice Nucleating Particle Measurements at 241 K during Winter Months at 3580 m MSL in the Swiss Alps. Journals of the Atmospheric Sciences, 2016, 73, 2203-2228.	1.7	59
126	Influence of Giant CCN on warm rain processes in the ECHAM5 GCM. Atmospheric Chemistry and Physics, 2008, 8, 3769-3788.	4.9	58

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127	Soot microphysical effects on liquid clouds, a multi-model investigation. Atmospheric Chemistry and Physics, 2011, 11, 1051-1064.	4.9	58
128	A synthesis of cloud condensation nuclei counter (CCNC) measurements within the EUCAARI network. Atmospheric Chemistry and Physics, 2015, 15, 12211-12229.	4.9	58
129	Why cirrus cloud seeding cannot substantially cool the planet. Journal of Geophysical Research D: Atmospheres, 2016, 121, 4877-4893.	3.3	57
130	Sensitivity studies of cirrus clouds formed by heterogeneous freezing in the ECHAM GCM. Journal of Geophysical Research, 2004, 109, .	3.3	56
131	HOLIMO II: a digital holographic instrument for ground-based in situ observations of microphysical properties of mixed-phase clouds. Atmospheric Measurement Techniques, 2013, 6, 2975-2987.	3.1	56
132	The SPectrometer for Ice Nuclei (SPIN): an instrument to investigate ice nucleation. Atmospheric Measurement Techniques, 2016, 9, 2781-2795.	3.1	56
133	Modelling the impact of fungal spore ice nuclei on clouds and precipitation. Environmental Research Letters, 2013, 8, 014029.	5.2	55
134	Enhancement of dust source area during past glacial periods due to changes of the Hadley circulation. Journal of Geophysical Research, 2001, 106, 18477-18485.	3.3	54
135	Intercomparison of aerosol-cloud-precipitation interactions in stratiform orographic mixed-phase clouds. Atmospheric Chemistry and Physics, 2010, 10, 8173-8196.	4.9	54
136	A model intercomparison of CCN-limited tenuous clouds in the high Arctic. Atmospheric Chemistry and Physics, 2018, 18, 11041-11071.	4.9	54
137	Ice nucleation of ammonia gas exposed montmorillonite mineral dust particles. Atmospheric Chemistry and Physics, 2007, 7, 3923-3931.	4.9	53
138	Sensitivity Studies of the Role of Aerosols in Warm-Phase Orographic Precipitation in Different Dynamical Flow Regimes. Journals of the Atmospheric Sciences, 2008, 65, 2522-2542.	1.7	53
139	Impact of the representation of marine stratocumulus clouds on the anthropogenic aerosol effect. Atmospheric Chemistry and Physics, 2014, 14, 11997-12022.	4.9	52
140	SALSA2.0: The sectional aerosol module of the aerosolâ€“chemistryâ€“climate model ECHAM6.3.0-HAM2.3-MOZ1.0. Geoscientific Model Development, 2018, 11, 3833-3863.	3.6	52
141	How efficient is cloud droplet formation of organic aerosols?. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	51
142	Modeling springtime shallow frontal clouds with cloud-resolving and single-column models. Journal of Geophysical Research, 2005, 110, .	3.3	51
143	Exploring the Mechanisms of Ice Nucleation on Kaolinite: From Deposition Nucleation to Condensation Freezing. Journals of the Atmospheric Sciences, 2014, 71, 16-36.	1.7	51
144	The chemistryâ€“climate model ECHAM6.3-HAM2.3-MOZ1.0. Geoscientific Model Development, 2018, 11, 1695-1723.	3.6	51

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145	Tropospheric sulfur cycle in the Canadian general circulation model. Journal of Geophysical Research, 1999, 104, 26833-26858.	3.3	50
146	Orographic cirrus in the global climate model ECHAM5. Journal of Geophysical Research, 2008, 113, .	3.3	50
147	Effect of photochemical ageing on the ice nucleation properties of diesel and wood burning particles. Atmospheric Chemistry and Physics, 2013, 13, 761-772.	4.9	50
148	Introduction of prognostic rain in ECHAM5: design and single column model simulations. Atmospheric Chemistry and Physics, 2008, 8, 2949-2963.	4.9	48
149	Contact freezing experiments of kaolinite particles with cloud droplets. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	48
150	Evaluating aerosol/cloud/radiation process parameterizations with single-column models and Second Aerosol Characterization Experiment (ACE-2) cloudy column observations. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	47
151	An Intensive Study of the Size and Composition of Submicron Atmospheric Aerosols at a Rural Site in Ontario, Canada. Aerosol Science and Technology, 2005, 39, 722-736.	3.1	47
152	The importance of mixed-phase and ice clouds for climate sensitivity in the global aerosolâ€“climate model ECHAM6-HAM2. Atmospheric Chemistry and Physics, 2018, 18, 8807-8828.	4.9	47
153	Sensitivity of sulphate aerosol size distributions and CCN concentrations over North America to SOxemissions and H2O2concentrations. Journal of Geophysical Research, 2000, 105, 9741-9765.	3.3	45
154	The Impact of Cloud Processing on the Ice Nucleation Abilities of Soot Particles at Cirrus Temperatures. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD030922.	3.3	45
155	Cloud response and feedback processes in stratiform mixedâ€phase clouds perturbed by ship exhaust. Geophysical Research Letters, 2017, 44, 1964-1972.	4.0	44
156	The global aerosolâ€“climate model ECHAM6.3â€“HAM2.3 â€“ Part 2: Cloud evaluation, aerosol radiative forcing, and climate sensitivity. Geoscientific Model Development, 2019, 12, 3609-3639.	3.6	44
157	Future warming exacerbated by aged-soot effect on cloud formation. Nature Geoscience, 2020, 13, 674-680.	12.9	44
158	Importance of submicron surface-active organic aerosols for pristine Arctic clouds. Tellus, Series B: Chemical and Physical Meteorology, 2022, 57, 261.	1.6	43
159	Weekly cycle in particulate matter versus weekly cycle in precipitation over Switzerland. Journal of Geophysical Research, 2009, 114, .	3.3	43
160	Single ice crystal measurements during nucleation experiments with the depolarization detector IODE. Atmospheric Chemistry and Physics, 2010, 10, 313-325.	4.9	43
161	Implementation and evaluation of aerosol and cloud microphysics in a regional climate model. Journal of Geophysical Research, 2011, 116, .	3.3	43
162	Experimental Study of Collection Efficiencies between Submicron Aerosols and Cloud Droplets. Journals of the Atmospheric Sciences, 2011, 68, 1853-1864.	1.7	43

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163	Uncertainty associated with convective wet removal of entrained aerosols in a global climate model. Atmospheric Chemistry and Physics, 2012, 12, 10725-10748.	4.9	43
164	Understanding the drivers of marine liquid-water cloud occurrence and properties with global observations using neural networks. Atmospheric Chemistry and Physics, 2017, 17, 9535-9546.	4.9	43
165	Limits on climate sensitivity derived from recent satellite and surface observations. Journal of Geophysical Research, 2007, 112, .	3.3	42
166	Sensitivity of the total anthropogenic aerosol effect to the treatment of rain in a global climate model. Geophysical Research Letters, 2009, 36, .	4.0	42
167	The Horizontal Ice Nucleation Chamber (HINC): INP measurements at conditions relevant for mixed-phase clouds at the High Altitude Research Station Jungfraujoch. Atmospheric Chemistry and Physics, 2017, 17, 15199-15224.	4.9	41
168	Summertime pollution events in the Arctic and potential implications. Journal of Geophysical Research, 2006, 111, .	3.3	39
169	Modeling of the Wegenerâ€“Bergeronâ€“Findeisen processâ€"implications for aerosol indirect effects. Environmental Research Letters, 2008, 3, 045001.	5.2	39
170	Application and Comparison of Robust Linear Regression Methods for Trend Estimation. Journal of Applied Meteorology and Climatology, 2009, 48, 1961-1970.	1.5	39
171	Anthropogenic Aerosol Influences on Mixed-Phase Clouds. Current Climate Change Reports, 2017, 3, 32-44.	8.6	39
172	Simulations of a Cold Front by Cloud-Resolving, Limited-Area, and Large-Scale Models, and a Model Evaluation Using In Situ and Satellite Observations. Monthly Weather Review, 2000, 128, 3218-3235.	1.4	38
173	Impact of the Mount Pinatubo eruption on cirrus clouds formed by homogeneous freezing in the ECHAM4 GCM. Journal of Geophysical Research, 2003, 108, .	3.3	38
174	Influence of future air pollution mitigation strategies on total aerosol radiative forcing. Atmospheric Chemistry and Physics, 2008, 8, 6405-6437.	4.9	38
175	Contributions from DMS and ship emissions to CCN observed over the summertime North Pacific. Atmospheric Chemistry and Physics, 2010, 10, 1287-1314.	4.9	37
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