

Ulrike Lohmann

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378 papers	26,891 citations	77 h-index	156 g-index
472 ext. papers	30,454 ext. citations	6.1 avg, IF	7.04 L-index

#	Paper	IF	Citations
378	Bounding the role of black carbon in the climate system: A scientific assessment. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 5380-5552	4.4	3330
377	Global indirect aerosol effects: a review. <i>Atmospheric Chemistry and Physics</i> , 2005 , 5, 715-737	6.8	1925
376	Flood or drought: how do aerosols affect precipitation?. <i>Science</i> , 2008 , 321, 1309-13	33.3	1352
375	Atmospheric component of the MPI-M Earth System Model: ECHAM6. <i>Journal of Advances in Modeling Earth Systems</i> , 2013 , 5, 146-172	7.1	835
374	An AeroCom initial assessment of optical properties in aerosol component modules of global models. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 1815-1834	6.8	575
373	The effect of physical and chemical aerosol properties on warm cloud droplet activation. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 2593-2649	6.8	571
372	Particulate matter, air quality and climate: lessons learned and future needs. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 8217-8299	6.8	462
371	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. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 2017-2038	6.8	394
370	Aerosol indirect effects in general circulation model intercomparison and evaluation with satellite data. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 8697-8717	6.8	356
369	Cloud microphysics and aerosol indirect effects in the global climate model ECHAM5-HAM. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 3425-3446	6.8	333
368	Tropical Rainfall Trends and the Indirect Aerosol Effect. <i>Journal of Climate</i> , 2002 , 15, 2103-2116	4.4	324
367	Design and performance of a new cloud microphysics scheme developed for the ECHAM general circulation model. <i>Climate Dynamics</i> , 1996 , 12, 557-572	4.2	312
366	The global aerosol-climate model ECHAM-HAM, version 2: sensitivity to improvements in process representations. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 8911-8949	6.8	255
365	Prediction of the number of cloud droplets in the ECHAM GCM. <i>Journal of Geophysical Research</i> , 1999 , 104, 9169-9198		251
364	A study of internal and external mixing scenarios and its effect on aerosol optical properties and direct radiative forcing. <i>Journal of Geophysical Research</i> , 2002 , 107, AAC 5-1-AAC 5-12		241
363	Coatings and their enhancement of black carbon light absorption in the tropical atmosphere. <i>Journal of Geophysical Research</i> , 2008 , 113,		233
362	General overview: European Integrated project on Aerosol Cloud Climate and Air Quality interactions (EUCAARI) Integrating aerosol research from nano to global scales. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 13061-13143	6.8	231

361	Energy budget constraints on climate response. <i>Nature Geoscience</i> , 2013 , 6, 415-416	18.3	228
360	. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1995 , 47, 281-300	3.3	226
359	Online coupled regional meteorology chemistry models in Europe: current status and prospects. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 317-398	6.8	223
358	Canadian Aerosol Module: A size-segregated simulation of atmospheric aerosol processes for climate and air quality models 1. Module development. <i>Journal of Geophysical Research</i> , 2003 , 108, AAC 3-1		221
357	Monthly averages of aerosol properties: A global comparison among models, satellite data, and AERONET ground data. <i>Journal of Geophysical Research</i> , 2003 , 108,		218
356	Solid ammonium sulfate aerosols as ice nuclei: a pathway for cirrus cloud formation. <i>Science</i> , 2006 , 313, 1770-3	33.3	210
355	Atmospheric composition change: Climate-Chemistry interactions. <i>Atmospheric Environment</i> , 2009 , 43, 5138-5192	5.3	206
354	Sensitivity Studies of the Importance of Dust Ice Nuclei for the Indirect Aerosol Effect on Stratiform Mixed-Phase Clouds. <i>Journals of the Atmospheric Sciences</i> , 2006 , 63, 968-982	2.1	204
353	A parameterization of cirrus cloud formation: Heterogeneous freezing. <i>Journal of Geophysical Research</i> , 2003 , 108,		196
352	A parameterization of cirrus cloud formation: Homogeneous freezing of supercooled aerosols. <i>Journal of Geophysical Research</i> , 2002 , 107, AAC 4-1		187
351	Comparing clouds and their seasonal variations in 10 atmospheric general circulation models with satellite measurements. <i>Journal of Geophysical Research</i> , 2005 , 110,		186
350	Can aerosols spin down the water cycle in a warmer and moister world?. <i>Geophysical Research Letters</i> , 2004 , 31, n/a-n/a	4.9	170
349	Global model simulations of the impact of ocean-going ships on aerosols, clouds, and the radiation budget. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 5061-5079	6.8	169
348	Bounding Global Aerosol Radiative Forcing of Climate Change. <i>Reviews of Geophysics</i> , 2020 , 58, e2019RG000660	9.1	165
347	Indirect effect of sulfate and carbonaceous aerosols: A mechanistic treatment. <i>Journal of Geophysical Research</i> , 2000 , 105, 12193-12206		162
346	A glaciation indirect aerosol effect caused by soot aerosols. <i>Geophysical Research Letters</i> , 2002 , 29, 11-1	4.9	161
345	Total aerosol effect: radiative forcing or radiative flux perturbation?. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 3235-3246	6.8	158
344	Constraining the total aerosol indirect effect in the LMDZ and ECHAM4 GCMs using MODIS satellite data. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 947-955	6.8	158

343	Aerosol nucleation and its role for clouds and Earth's radiative forcing in the aerosol-climate model ECHAM5-HAM. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 10733-10752	6.8	157
342	Impact of sulfate aerosols on albedo and lifetime of clouds: A sensitivity study with the ECHAM4 GCM. <i>Journal of Geophysical Research</i> , 1997 , 102, 13685-13700		154
341	Stronger constraints on the anthropogenic indirect aerosol effect. <i>Science</i> , 2002 , 298, 1012-5	33.3	153
340	Influence of particle size on the ice nucleating ability of mineral dusts. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 6705-6715	6.8	150
339	The sulfate-CCN-cloud albedo effect. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1995 , 47, 281-300	39	142
338	Sensitivity studies of different aerosol indirect effects in mixed-phase clouds. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 8917-8934	6.8	139
337	Interpreting the cloud cover to aerosol optical depth relationship found in satellite data using a general circulation model. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 6129-6135	6.8	139
336	The global influence of dust mineralogical composition on heterogeneous ice nucleation in mixed-phase clouds. <i>Environmental Research Letters</i> , 2008 , 3, 025003	6.2	132
335	Experimental study on the ice nucleation ability of size-selected kaolinite particles in the immersion mode. <i>Journal of Geophysical Research</i> , 2010 , 115,		131
334	Nonlinear Aspects of the Climate Response to Greenhouse Gas and Aerosol Forcing. <i>Journal of Climate</i> , 2004 , 17, 2384-2398	4.4	129
333	Physically based parameterization of cirrus cloud formation for use in global atmospheric models. <i>Journal of Geophysical Research</i> , 2006 , 111,		128
332	Freezing thresholds and cirrus cloud formation mechanisms inferred from in situ measurements of relative humidity. <i>Atmospheric Chemistry and Physics</i> , 2003 , 3, 1791-1806	6.8	126
331	Sensitivity of aerosol concentrations and cloud properties to nucleation and secondary organic distribution in ECHAM5-HAM global circulation model. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 1747-1766	6.8	124
330	Oxalic acid as a heterogeneous ice nucleus in the upper troposphere and its indirect aerosol effect. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 3115-3129	6.8	121
329	CGILS: Results from the first phase of an international project to understand the physical mechanisms of low cloud feedbacks in single column models. <i>Journal of Advances in Modeling Earth Systems</i> , 2013 , 5, 826-842	7.1	115
328	Can the direct and semi-direct aerosol effect compete with the indirect effect on a global scale?. <i>Geophysical Research Letters</i> , 2001 , 28, 159-161	4.9	114
327	Technical Note: On the use of nudging for aerosol-climate model intercomparison studies. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 8631-8645	6.8	112
326	Intercomparison and evaluation of cumulus parametrizations under summertime midlatitude continental conditions. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2002 , 128, 1095-1135	6.4	106

325	Classical nucleation theory of homogeneous freezing of water: thermodynamic and kinetic parameters. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 5514-37	3.6	105
324	The Zurich Ice Nucleation Chamber (ZINC)-A New Instrument to Investigate Atmospheric Ice Formation. <i>Aerosol Science and Technology</i> , 2008 , 42, 64-74	3.4	105
323	Ice nuclei properties within a Saharan dust event at the Jungfraujoch in the Swiss Alps. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 4725-4738	6.8	104
322	Aerosol size-dependent below-cloud scavenging by rain and snow in the ECHAM5-HAM. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 4653-4675	6.8	104
321	Climate impacts of ice nucleation. <i>Journal of Geophysical Research</i> , 2012 , 117,		101
320	Intercomparison of the cloud water phase among global climate models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014 , 119, 3372-3400	4.4	100
319	Mixed-Phase Clouds: Progress and Challenges. <i>Meteorological Monographs</i> , 2017 , 58, 5.1-5.50	5.7	100
318	The atmospheric sulfur cycle in ECHAM-4 and its impact on the shortwave radiation. <i>Climate Dynamics</i> , 1997 , 13, 235-246	4.2	100
317	Possible Aerosol Effects on Ice Clouds via Contact Nucleation. <i>Journals of the Atmospheric Sciences</i> , 2002 , 59, 647-656	2.1	100
316	Challenges in constraining anthropogenic aerosol effects on cloud radiative forcing using present-day spatiotemporal variability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 5804-11	11.5	97
315	A comparison of single column model simulations of summertime midlatitude continental convection. <i>Journal of Geophysical Research</i> , 2000 , 105, 2091-2124		97
314	Fire in the Air: Biomass Burning Impacts in a Changing Climate. <i>Critical Reviews in Environmental Science and Technology</i> , 2013 , 43, 40-83	11.1	96
313	First interactive simulations of cirrus clouds formed by homogeneous freezing in the ECHAM general circulation model. <i>Journal of Geophysical Research</i> , 2002 , 107, AAC 8-1-AAC 8-13		95
312	Aerosol Influence on Mixed-Phase Clouds in CAM-Oslo. <i>Journals of the Atmospheric Sciences</i> , 2008 , 65, 3214-3230	2.1	94
311	Water uptake of clay and desert dust aerosol particles at sub- and supersaturated water vapor conditions. <i>Physical Chemistry Chemical Physics</i> , 2009 , 11, 7804-9	3.6	90
310	A Parameterization of cirrus cloud formation: Homogeneous freezing including effects of aerosol size. <i>Journal of Geophysical Research</i> , 2002 , 107, AAC 9-1-AAC 9-10		90
309	Black carbon ageing in the Canadian Centre for Climate modelling and analysis atmospheric general circulation model. <i>Atmospheric Chemistry and Physics</i> , 2005 , 5, 1931-1949	6.8	88
308	A Comparison of Model- and Satellite-Derived Aerosol Optical Depth and Reflectivity. <i>Journals of the Atmospheric Sciences</i> , 2002 , 59, 441-460	2.1	87

307	A GCM study of future climate response to aerosol pollution reductions. <i>Climate Dynamics</i> , 2010 , 34, 1177-1194	4.2	84
306	Inadvertent climate modification due to anthropogenic lead. <i>Nature Geoscience</i> , 2009 , 2, 333-336	18.3	82
305	Time dependence of immersion freezing: an experimental study on size selected kaolinite particles. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 9893-9907	6.8	82
304	Influences of in-cloud aerosol scavenging parameterizations on aerosol concentrations and wet deposition in ECHAM5-HAM. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 1511-1543	6.8	82
303	Characterization of the aerosol over the sub-arctic north east Pacific Ocean. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2006 , 53, 2410-2433	2.3	82
302	A concept for a satellite mission to measure cloud ice water path, ice particle size, and cloud altitude. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2007 , 133, 109-128	6.4	79
301	Contact freezing: a review of experimental studies. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 9745-9769	6.9	77
300	Cirrus cloud formation and ice supersaturated regions in a global climate model. <i>Environmental Research Letters</i> , 2008 , 3, 045022	6.2	77
299	Ice Nucleation Studies of Mineral Dust Particles with a New Continuous Flow Diffusion Chamber. <i>Aerosol Science and Technology</i> , 2006 , 40, 134-143	3.4	75
298	Ice nucleating particles in the Saharan Air Layer. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 9067-9087	6.8	74
297	Effects of ice nuclei on cirrus clouds in a global climate model. <i>Journal of Geophysical Research</i> , 2011 , 116,		74
296	An Introduction to Clouds: From the Microscale to Climate 2016 ,		73
295	Pore condensation and freezing is responsible for ice formation below water saturation for porous particles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 8184-8189	11.5	72
294	Marine and Terrestrial Organic Ice-Nucleating Particles in Pristine Marine to Continentally Influenced Northeast Atlantic Air Masses. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018 , 123, 6196-6212	4.4	72
293	Simulating the global atmospheric black carbon cycle: a revisit to the contribution of aircraft emissions. <i>Atmospheric Chemistry and Physics</i> , 2004 , 4, 2521-2541	6.8	72
292	The potential influence of Asian and African mineral dust on ice, mixed-phase and liquid water clouds. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 8649-8667	6.8	71
291	Disentangling greenhouse warming and aerosol cooling to reveal Earth's climate sensitivity. <i>Nature Geoscience</i> , 2016 , 9, 286-289	18.3	69
290	Heterogeneous ice nucleation on dust particles sourced from nine deserts worldwide [Part 1: Immersion freezing. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 15075-15095	6.8	68

289	Impact of parametric uncertainties on the present-day climate and on the anthropogenic aerosol effect. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 11373-11383	6.8	68
288	Hygroscopic properties of fresh and aged wood burning particles. <i>Journal of Aerosol Science</i> , 2013 , 56, 15-29	4.3	66
287	Cloud condensation nuclei closure study on summer arctic aerosol. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 11335-11350	6.8	65
286	Impact of ice supersaturated regions and thin cirrus on radiation in the midlatitudes. <i>Journal of Geophysical Research</i> , 2007 , 112,		65
285	Sensitivity study of the spectral dispersion of the cloud droplet size distribution on the indirect aerosol effect. <i>Geophysical Research Letters</i> , 2003 , 30, n/a-n/a	4.9	64
284	Laboratory studies of immersion and deposition mode ice nucleation of ozone aged mineral dust particles. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 9097-9118	6.8	63
283	Ice nucleation efficiency of AgI: review and new insights. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 8915-8937	6.8	62
282	Evaluation of the aerosol vertical distribution in global aerosol models through comparison against CALIOP measurements: AeroCom phase II results. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 7254-7283	4.4	62
281	Sensitivity Studies of Aerosol-Cloud Interactions in Mixed-Phase Orographic Precipitation. <i>Journals of the Atmospheric Sciences</i> , 2009 , 66, 2517-2538	2.1	61
280	Bacteria in the ECHAM5-HAM global climate model. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 8645-8661	6.1	60
279	Contribution of Changes in Sea Surface Temperature and Aerosol Loading to the Decreasing Precipitation Trend in Southern China. <i>Journal of Climate</i> , 2005 , 18, 1381-1390	4.4	60
278	Comparing Different Cloud Schemes of a Single Column Model by Using Mesoscale Forcing and Nudging Technique. <i>Journal of Climate</i> , 1999 , 12, 438-461	4.4	60
277	Global simulations of aerosol processing in clouds. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 6939-6968	6.8	59
276	Influence of cirrus cloud radiative forcing on climate and climate sensitivity in a general circulation model. <i>Journal of Geophysical Research</i> , 1995 , 100, 16305		59
275	Do aircraft black carbon emissions affect cirrus clouds on the global scale?. <i>Geophysical Research Letters</i> , 2005 , 32, n/a-n/a	4.9	58
274	Constraining the instantaneous aerosol influence on cloud albedo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 4899-4904	11.5	57
273	The global aerosol-climate model ECHAM6.3-HAM2.3 [Part 1: Aerosol evaluation. <i>Geoscientific Model Development</i> , 2019 , 12, 1643-1677	6.3	57
272	Cirrus Clouds. <i>Meteorological Monographs</i> , 2017 , 58, 2.1-2.26	5.7	57

271	Global anthropogenic aerosol effects on convective clouds in ECHAM5-HAM. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 2115-2131	6.8	57
270	Aerosol indirect effect over the Indian Ocean. <i>Geophysical Research Letters</i> , 2006 , 33,	4.9	57
269	. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2001 , 53, 615-645	3.3	57
268	Simulation of the tropospheric sulfur cycle in a global model with a physically based cloud scheme. <i>Journal of Geophysical Research</i> , 2002 , 107, AAC 20-1-AAC 20-21		57
267	Effects of stratospheric sulfate aerosol geo-engineering on cirrus clouds. <i>Geophysical Research Letters</i> , 2012 , 39, n/a-n/a	4.9	56
266	Different Approaches for Constraining Global Climate Models of the Anthropogenic Indirect Aerosol Effect. <i>Bulletin of the American Meteorological Society</i> , 2007 , 88, 243-250	6.1	56
265	Simulations of midlatitude frontal clouds by single-column and cloud-resolving models during the Atmospheric Radiation Measurement March 2000 cloud intensive operational period. <i>Journal of Geophysical Research</i> , 2005 , 110,		56
264	High-Cloud Horizontal Inhomogeneity and Solar Albedo Bias. <i>Journal of Climate</i> , 2002 , 15, 2321-2339	4.4	56
263	Dust ice nuclei effects on cirrus clouds. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 3027-3046	6.8	55
262	Importance of submicron surface-active organic aerosols for pristine Arctic clouds. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2005 , 57, 261-268	3.3	55
261	Importance of vertical velocity variations in the cloud droplet nucleation process of marine stratus clouds. <i>Journal of Geophysical Research</i> , 2005 , 110,		54
260	The cloud albedo-cloud droplet effective radius relationship for clean and polluted clouds from RACE and FIRE.ACE. <i>Journal of Geophysical Research</i> , 2002 , 107, AAC 1-1-AAC 1-6		53
259	Design and performance of a new cloud microphysics scheme developed for the ECHAM general circulation model 1996 , 12, 557		53
258	On the characteristics of aerosol indirect effect based on dynamic regimes in global climate models. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 2765-2783	6.8	52
257	Sensitivity studies of cirrus clouds formed by heterogeneous freezing in the ECHAM GCM. <i>Journal of Geophysical Research</i> , 2004 , 109,		52
256	Mass spectrometry of refractory black carbon particles from six sources: carbon-cluster and oxygenated ions. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 2591-2603	6.8	51
255	Soot microphysical effects on liquid clouds, a multi-model investigation. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 1051-1064	6.8	51
254	Sensitivity Studies of the Role of Aerosols in Warm-Phase Orographic Precipitation in Different Dynamical Flow Regimes. <i>Journals of the Atmospheric Sciences</i> , 2008 , 65, 2522-2542	2.1	49

253	Ice nucleation of ammonia gas exposed montmorillonite mineral dust particles. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 3923-3931	6.8	47
252	Modelling the impact of fungal spore ice nuclei on clouds and precipitation. <i>Environmental Research Letters</i> , 2013 , 8, 014029	6.2	46
251	Intercomparison of aerosol-cloud-precipitation interactions in stratiform orographic mixed-phase clouds. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 8173-8196	6.8	46
250	Tropospheric sulfur cycle in the Canadian general circulation model. <i>Journal of Geophysical Research</i> , 1999 , 104, 26833-26858		46
249	How efficient is cloud droplet formation of organic aerosols?. <i>Geophysical Research Letters</i> , 2004 , 31, n/a-n/a	4.9	45
248	Ice Nucleating Particle Measurements at 241 K during Winter Months at 3580 m MSL in the Swiss Alps. <i>Journals of the Atmospheric Sciences</i> , 2016 , 73, 2203-2228	2.1	45
247	A cirrus cloud climate dial?. <i>Science</i> , 2017 , 357, 248-249	33.3	44
246	Introduction of prognostic rain in ECHAM5: design and single column model simulations. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 2949-2963	6.8	44
245	Enhancement of dust source area during past glacial periods due to changes of the Hadley circulation. <i>Journal of Geophysical Research</i> , 2001 , 106, 18477-18485		44
244	The SPectrometer for Ice Nuclei (SPIN): an instrument to investigate ice nucleation. <i>Atmospheric Measurement Techniques</i> , 2016 , 9, 2781-2795	4	44
243	Ice nucleation abilities of soot particles determined with the Horizontal Ice Nucleation Chamber. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 13363-13392	6.8	44
242	Exploring the Mechanisms of Ice Nucleation on Kaolinite: From Deposition Nucleation to Condensation Freezing. <i>Journals of the Atmospheric Sciences</i> , 2014 , 71, 16-36	2.1	43
241	Modeling springtime shallow frontal clouds with cloud-resolving and single-column models. <i>Journal of Geophysical Research</i> , 2005 , 110,		43
240	Orographic cirrus in the global climate model ECHAM5. <i>Journal of Geophysical Research</i> , 2008 , 113,		42
239	Influence of Giant CCN on warm rain processes in the ECHAM5 GCM. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 3769-3788	6.8	42
238	Effect of photochemical ageing on the ice nucleation properties of diesel and wood burning particles. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 761-772	6.8	41
237	An Intensive Study of the Size and Composition of Submicron Atmospheric Aerosols at a Rural Site in Ontario, Canada. <i>Aerosol Science and Technology</i> , 2005 , 39, 722-736	3.4	41
236	Impact of the representation of marine stratocumulus clouds on the anthropogenic aerosol effect. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 11997-12022	6.8	40

235	Implementation and evaluation of aerosol and cloud microphysics in a regional climate model. <i>Journal of Geophysical Research</i> , 2011 , 116,		40
234	Weekly cycle in particulate matter versus weekly cycle in precipitation over Switzerland. <i>Journal of Geophysical Research</i> , 2009 , 114,		40
233	Sensitivity of the total anthropogenic aerosol effect to the treatment of rain in a global climate model. <i>Geophysical Research Letters</i> , 2009 , 36, n/a-n/a	4.9	40
232	HOLIMO II: a digital holographic instrument for ground-based in situ observations of microphysical properties of mixed-phase clouds. <i>Atmospheric Measurement Techniques</i> , 2013 , 6, 2975-2987	4	39
231	Contact freezing experiments of kaolinite particles with cloud droplets. <i>Journal of Geophysical Research</i> , 2011 , 116, n/a-n/a		39
230	Sensitivity of sulphate aerosol size distributions and CCN concentrations over North America to SO _x emissions and H ₂ O ₂ concentrations. <i>Journal of Geophysical Research</i> , 2000 , 105, 9741-9765		39
229	A model intercomparison of CCN-limited tenuous clouds in the high Arctic. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 11041-11071	6.8	38
228	Why cirrus cloud seeding cannot substantially cool the planet. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 4877-4893	4.4	37
227	Uncertainty associated with convective wet removal of entrained aerosols in a global climate model. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 10725-10748	6.8	37
226	Single ice crystal measurements during nucleation experiments with the depolarization detector IODE. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 313-325	6.8	37
225	Influence of future air pollution mitigation strategies on total aerosol radiative forcing. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 6405-6437	6.8	36
224	Summertime pollution events in the Arctic and potential implications. <i>Journal of Geophysical Research</i> , 2006 , 111,		36
223	A synthesis of cloud condensation nuclei counter (CCNC) measurements within the EUCAARI network. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 12211-12229	6.8	35
222	Evaluating aerosol/cloud/radiation process parameterizations with single-column models and Second Aerosol Characterization Experiment (ACE-2) cloudy column observations. <i>Journal of Geophysical Research</i> , 2003 , 108, n/a-n/a		35
221	The importance of mixed-phase and ice clouds for climate sensitivity in the global aerosol climate model ECHAM6-HAM2. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 8807-8828	6.8	35
220	Contributions from DMS and ship emissions to CCN observed over the summertime North Pacific. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 1287-1314	6.8	34
219	Impact of the Mount Pinatubo eruption on cirrus clouds formed by homogeneous freezing in the ECHAM4 GCM. <i>Journal of Geophysical Research</i> , 2003 , 108,		34
218	Simulations of a Cold Front by Cloud-Resolving, Limited-Area, and Large-Scale Models, and a Model Evaluation Using In Situ and Satellite Observations. <i>Monthly Weather Review</i> , 2000 , 128, 3218-3235	2.4	34

217	Experimental Study of Collection Efficiencies between Submicron Aerosols and Cloud Droplets. <i>Journals of the Atmospheric Sciences</i> , 2011 , 68, 1853-1864	2.1	33
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63	Effect of photochemical aging on the ice nucleation properties of diesel and wood burning particles		3
62	On the characteristics of aerosol indirect effect based on dynamic regimes in global climate models		3
61	Global model simulations of the impact of ocean-going ships on aerosols, clouds, and the radiation budget		3
60	Global simulations of aerosol processing in clouds		3
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42	Laboratory studies of immersion and deposition mode ice nucleation of ozone aged mineral dust particles		2
41	Introduction of prognostic rain in ECHAM5: design and Single Column Model simulations		2
40	Influence of Giant CCN on warm rain processes in the ECHAM5 GCM		2
39	Sensitivity of aerosol concentrations and cloud properties to nucleation and secondary organic distribution in ECHAM5-HAM global circulation model		2
38	The SPectrometer for Ice Nuclei (SPIN): An instrument to investigate ice nucleation		2

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20	Dust ice nuclei effects on cirrus clouds		1

19	Black-carbon-surface oxidation and organic composition of beech-wood soot aerosols		1
18	Global anthropogenic aerosol effects on convective clouds in ECHAM5-HAM		1
17	Single ice crystal measurements during nucleation experiments with the depolarization detector IODE		1
16	Interpreting the cloud cover–aerosol optical depth relationship found in satellite data using a general circulation model		1
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