Corinna Hoose

List of Publications by Year
in descending order

80 papers	8,914 citations	101384 36 h-index	66788 78 g-index
136 all docs	136 docs citations	136 times ranked	7911 citing authors

#	Article	IF	Citations
1	Primary biological aerosol particles in the atmosphere: a review. Tellus, Series B: Chemical and Physical Meteorology, 2022, 64, 15598.	0.8	988
2	Online treatment of eruption dynamics improves the volcanic ash and SO₂ dispersion forecast: case of the 2019 Raikoke eruption. Atmospheric Chemistry and Physics, 2022, 22, 3535-3552.	1.9	13
3	Another Piece of Evidence for Important but Uncertain Ice Multiplication Processes. AGU Advances, 2022, 3, .	2.3	2
4	Exploring the Cloud Top Phase Partitioning in Different Cloud Types Using Active and Passive Satellite Sensors. Geophysical Research Letters, 2021, 48, e2020GL089863.	1.5	10
5	Analyzing the Thermodynamic Phase Partitioning of Mixed Phase Clouds Over the Southern Ocean Using Passive Satellite Observations. Geophysical Research Letters, 2021, 48, e2021GL093225.	1.5	4
6	Impacts of Varying Concentrations of Cloud Condensation Nuclei on Deep Convective Cloud Updraftsâ€"A Multimodel Assessment. Journals of the Atmospheric Sciences, 2021, 78, 1147-1172.	0.6	33
7	Waves to Weather: Exploring the Limits of Predictability of Weather. Bulletin of the American Meteorological Society, 2021, 102, E2151-E2164.	1.7	5
8	Comparing the impact of environmental conditions and microphysics on the forecast uncertainty of deep convective clouds and hail. Atmospheric Chemistry and Physics, 2020, 20, 2201-2219.	1.9	22
9	Confronting the Challenge of Modeling Cloud and Precipitation Microphysics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001689.	1.3	154
10	Detection and attribution of aerosolâ€"cloud interactions in large-domain large-eddy simulations with the ICOsahedral Non-hydrostatic model. Atmospheric Chemistry and Physics, 2020, 20, 5657-5678.	1.9	20
11	Analysis of the Thermodynamic Phase Transition of Tracked Convective Clouds Based on Geostationary Satellite Observations. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032146.	1.2	6
12	The Research Unit VolImpact: Revisiting the volcanic impact on atmosphere and climateÂâ€" preparations for the next big volcanic eruption. Meteorologische Zeitschrift, 2020, 29, 3-18.	0.5	20
13	Aerosolâ€Cloudâ€Precipitation Interactions in the Context of Convective Selfâ€Aggregation. Journal of Advances in Modeling Earth Systems, 2019, 11, 1066-1087.	1.3	7
14	Classification of Arctic multilayer clouds using radiosonde and radar data in Svalbard. Atmospheric Chemistry and Physics, 2019, 19, 5111-5126.	1.9	23
15	Detection of Mixedâ€Phase Convective Clouds by a Binary Phase Information From the Passive Geostationary Instrument SEVIRI. Journal of Geophysical Research D: Atmospheres, 2019, 124, 5045-5057.	1.2	10
16	Comparison of Modeled and Measured Ice Nucleating Particle Composition in a Cirrus Cloud. Journals of the Atmospheric Sciences, 2019, 76, 1015-1029.	0.6	3
17	One Step at a Time: How Model Time Step Significantly Affects Convectionâ€Permitting Simulations. Journal of Advances in Modeling Earth Systems, 2019, 11, 641-658.	1.3	26
18	Relative impact of aerosol, soil moisture, and orography perturbations on deep convection. Atmospheric Chemistry and Physics, 2019, 19, 12343-12359.	1.9	15

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19	The precipitation response to variable terrain forcing over low mountain ranges in different weather regimes. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 970-989.	1.0	19
20	Initiation of secondary ice production in clouds. Atmospheric Chemistry and Physics, 2018, 18, 1593-1610.	1.9	53
21	Using Emulators to Understand the Sensitivity of Deep Convective Clouds and Hail to Environmental Conditions. Journal of Advances in Modeling Earth Systems, 2018, 10, 3103-3122.	1.3	16
22	The effect of secondary ice production parameterization on the simulation of a cold frontal rainband. Atmospheric Chemistry and Physics, 2018, 18, 16461-16480.	1.9	19
23	The impact of mineral dust on cloud formation during the Saharan dust event in AprilÂ2014 over Europe. Atmospheric Chemistry and Physics, 2018, 18, 17545-17572.	1.9	19
24	Simulating the influence of primary biological aerosol particles on clouds by heterogeneous ice nucleation. Atmospheric Chemistry and Physics, 2018, 18, 15437-15450.	1.9	17
25	Simulated and observed horizontal inhomogeneities of optical thickness of Arctic stratus. Atmospheric Chemistry and Physics, 2018, 18, 13115-13133.	1.9	7
26	Aerosol Effects on Clouds and Precipitation over Central Europe in Different Weather Regimes. Journals of the Atmospheric Sciences, 2018, 75, 4247-4264.	0.6	24
27	A model intercomparison of CCN-limited tenuous clouds in the high Arctic. Atmospheric Chemistry and Physics, 2018, 18, 11041-11071.	1.9	54
28	Cloud Top Phase Distributions of Simulated Deep Convective Clouds. Journal of Geophysical Research D: Atmospheres, 2018, 123, 10,464.	1.2	4
29	A New Ice Nucleation Active Site Parameterization for Desert Dust and Soot. Journals of the Atmospheric Sciences, 2017, 74, 699-717.	0.6	153
30	Aerosol- and Droplet-Dependent Contact Freezing: Parameterization Development and Case Study. Journals of the Atmospheric Sciences, 2017, 74, 2229-2245.	0.6	5
31	Redistribution of ice nuclei between cloud and rain droplets: Parameterization and application to deep convective clouds. Journal of Advances in Modeling Earth Systems, 2017, 9, 514-535.	1.3	13
32	Investigating the contribution of secondary ice production to inâ€cloud ice crystal numbers. Journal of Geophysical Research D: Atmospheres, 2017, 122, 9391-9412.	1.2	22
33	Largeâ€eddy simulations over Germany using ICON: a comprehensive evaluation. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 69-100.	1.0	175
34	Modelling micro- and macrophysical contributors to the dissipation of an Arctic mixed-phase cloud during the Arctic Summer Cloud Ocean Study (ASCOS). Atmospheric Chemistry and Physics, 2017, 17, 6693-6704.	1.9	39
35	Partitioning the primary ice formation modes in large eddy simulations of mixed-phase clouds. Atmospheric Chemistry and Physics, 2017, 17, 14105-14118.	1.9	26
36	Sensitivity of the 2014 Pentecost storms over Germany to different model grids and microphysics schemes. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 1485-1503.	1.0	21

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37	Ice nucleation activity of agricultural soil dust aerosols from Mongolia, Argentina, and Germany. Journal of Geophysical Research D: Atmospheres, 2016, 121, 13,559.	1.2	49
38	Cloud glaciation temperature estimation from passive remote sensing data with evolutionary computing. Journal of Geophysical Research D: Atmospheres, 2016, 121, 13,591.	1.2	11
39	Parameterizing cloud condensation nuclei concentrations during HOPE. Atmospheric Chemistry and Physics, 2016, 16, 12059-12079.	1.9	33
40	A new temperature- and humidity-dependent surface site density approach for deposition ice nucleation. Atmospheric Chemistry and Physics, 2015, 15, 3703-3717.	1.9	36
41	Seasonal variability of Saharan desert dust and ice nucleating particles over Europe. Atmospheric Chemistry and Physics, 2015, 15, 4389-4397.	1.9	47
42	Regional-scale simulations of fungal spore aerosols using an emission parameterization adapted to local measurements of fluorescent biological aerosol particles. Atmospheric Chemistry and Physics, 2015, 15, 6127-6146.	1.9	44
43	Spatial and temporal variability of clouds and precipitation over Germany: multiscale simulations across the "gray zone". Atmospheric Chemistry and Physics, 2015, 15, 12361-12384.	1.9	28
44	Ice nucleation by cellulose and its potential contribution to ice formation in clouds. Nature Geoscience, 2015, 8, 273-277.	5.4	105
45	Classical nucleation theory of homogeneous freezing of water: thermodynamic and kinetic parameters. Physical Chemistry Chemical Physics, 2015, 17, 5514-5537.	1.3	151
46	Modeling immersion freezing with aerosolâ€dependent prognostic ice nuclei in Arctic mixedâ€phase clouds. Journal of Geophysical Research D: Atmospheres, 2014, 119, 9073-9092.	1.2	32
47	Intercomparison of largeâ€eddy simulations of Arctic mixedâ€phase clouds: Importance of ice size distribution assumptions. Journal of Advances in Modeling Earth Systems, 2014, 6, 223-248.	1.3	114
48	Different contact angle distributions for heterogeneous ice nucleation in the Community Atmospheric Model version 5. Atmospheric Chemistry and Physics, 2014, 14, 10411-10430.	1.9	99
49	Impact of the representation of marine stratocumulus clouds on the anthropogenic aerosol effect. Atmospheric Chemistry and Physics, 2014, 14, 11997-12022.	1.9	52
50	A comprehensive parameterization of heterogeneous ice nucleation of dust surrogate: laboratory study with hematite particles and its application to atmospheric models. Atmospheric Chemistry and Physics, 2014, 14, 13145-13158.	1.9	18
51	Quantification of ice nuclei active at near 0 Â°C temperatures in low-altitude clouds at the Puy de DÃ´me atmospheric station. Atmospheric Chemistry and Physics, 2014, 14, 8185-8195.	1.9	67
52	Implement a classical-theory-based parameterization of heterogeneous ice nucleation in CAM5. , 2013, , .		0
53	Parameterizations of ice formation derived from AIDA cloud simulation experiments. , 2013, , .		0
54	Clarifying the Dominant Sources and Mechanisms of Cirrus Cloud Formation. Science, 2013, 340, 1320-1324.	6.0	442

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55	Aerosolâ€“climate interactions in the Norwegian Earth System Model â€“ NorESM1-M. Geoscientific Model Development, 2013, 6, 207-244.	1.3	158
56	Ice nuclei in marine air: biogenic particles or dust?. Atmospheric Chemistry and Physics, 2013, 13, 245-267.	1.9	226
57	The Norwegian Earth System Model, NorESM1-M â€“ Part 1: Description and basic evaluation of the physical climate. Geoscientific Model Development, 2013, 6, 687-720.	1.3	725
58	A Particle-Surface-Area-Based Parameterization of Immersion Freezing on Desert Dust Particles. Journals of the Atmospheric Sciences, 2012, 69, 3077-3092.	0.6	338
59	Uncertainty associated with convective wet removal of entrained aerosols in a global climate model. Atmospheric Chemistry and Physics, 2012, 12, 10725-10748.	1.9	43
60	Heterogeneous ice nucleation on atmospheric aerosols: a review of results from laboratory experiments. Atmospheric Chemistry and Physics, 2012, 12, 9817-9854.	1.9	923
61	Global modeling of mixed-phase clouds: The albedo and lifetime effects of aerosols. Journal of Geophysical Research, 2011, 116, .	3.3	60
62	Ice nucleation properties of fine ash particles from the EyjafjallajÃ¶kull eruption in April 2010. Atmospheric Chemistry and Physics, 2011, 11, 12945-12958.	1.9	60
63	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.	1.9	278
64	Soot microphysical effects on liquid clouds, a multi-model investigation. Atmospheric Chemistry and Physics, 2011, 11, 1051-1064.	1.9	58
65	Ocean algae and atmospheric ice. Nature Geoscience, 2011, 4, 76-77.	5.4	6
66	Influences of in-cloud aerosol scavenging parameterizations on aerosol concentrations and wet deposition in ECHAM5-HAM. Atmospheric Chemistry and Physics, 2010, 10, 1511-1543.	1.9	109
67	A Classical-Theory-Based Parameterization of Heterogeneous Ice Nucleation by Mineral Dust, Soot, and Biological Particles in a Global Climate Model. Journals of the Atmospheric Sciences, 2010, 67, 2483-2503.	0.6	348
68	How important is biological ice nucleation in clouds on a global scale?. Environmental Research Letters, 2010, 5, 024009.	2.2	245
69	Do anthropogenic aerosols enhance or suppress the surface cloud forcing in the Arctic?. Journal of Geophysical Research, 2010, 115, .	3.3	23
70	Intercomparison of model simulations of mixedâ€phase clouds observed during the ARM Mixedâ€Phase Arctic Cloud Experiment. II: Multilayer cloud. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 1003-1019.	1.0	84
71	Intercomparison of model simulations of mixedâ€phase clouds observed during the ARM Mixedâ€Phase Arctic Cloud Experiment. I: singleâ€layer cloud. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 979-1002.	1.0	224
72	Biological ice formation. Nature Geoscience, 2009, 2, 385-386.	5.4	5

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73	Constraining cloud droplet number concentration in GCMs suppresses the aerosol indirect effect. Geophysical Research Letters, 2009, 36, .	1.5	125
74	Aerosol indirect effects â€“ general circulation model intercomparison and evaluation with satellite data. Atmospheric Chemistry and Physics, 2009, 9, 8697-8717.	1.9	418
75	Sensitivity studies of different aerosol indirect effects in mixed-phase clouds. Atmospheric Chemistry and Physics, 2009, 9, 8917-8934.	1.9	175
76	Aerosol processing in mixedâ€phase clouds in ECHAM5â€HAM: Model description and comparison to observations. Journal of Geophysical Research, 2008, 113, .	3.3	33
77	The global influence of dust mineralogical composition on heterogeneous ice nucleation in mixed-phase clouds. Environmental Research Letters, 2008, 3, 025003.	2.2	149
78	Global simulations of aerosol processing in clouds. Atmospheric Chemistry and Physics, 2008, 8, 6939-6963.	1.9	71
79	Cloud microphysics and aerosol indirect effects in the global climate model ECHAM5-HAM. Atmospheric Chemistry and Physics, 2007, 7, 3425-3446.	1.9	385
80	A model of dust transport applied to the Dead Sea Area. Meteorologische Zeitschrift, 2006, 15, 611-624.	0.5	50