Susanne Bauer

List of Publications by Year
in descending order

67 papers	7,353 citations	71061 41 h-index	98753 67 g-index
127 all docs	127 docs citations	127 times ranked	7974 citing authors

#	Article	IF	Citations
1	Present-Day Atmospheric Simulations Using GISS ModelE: Comparison to In Situ, Satellite, and Reanalysis Data. Journal of Climate, 2006, 19, 153-192.	1.2	832
2	An AeroCom initial assessment â€“ optical properties in aerosol component modules of global models. Atmospheric Chemistry and Physics, 2006, 6, 1815-1834.	1.9	697
3	Configuration and assessment of the GISS ModelE2 contributions to the CMIP5 archive. Journal of Advances in Modeling Earth Systems, 2014, 6, 141-184.	1.3	597
4	The AeroCom evaluation and intercomparison of organic aerosol in global models. Atmospheric Chemistry and Physics, 2014, 14, 10845-10895.	1.9	363
5	Nitrate aerosols today and in 2030: a global simulation including aerosols and tropospheric ozone. Atmospheric Chemistry and Physics, 2007, 7, 5043-5059.	1.9	238
6	Climate model projections from the Scenario Model Intercomparison ProjectÂ(ScenarioMIP) of CMIP6. Earth System Dynamics, 2021, 12, 253-293.	2.7	236
7	GISSâ€E2.1: Configurations and Climatology. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002025.	1.3	234
8	Global modeling of heterogeneous chemistry on mineral aerosol surfaces: Influence on tropospheric ozone chemistry and comparison to observations. Journal of Geophysical Research, 2004, 109, .	3.3	231
9	Application of the CALIOP layer product to evaluate the vertical distribution of aerosols estimated by global models: AeroCom phase I results. Journal of Geophysical Research, 2012, 117, .	3.3	170
10	MATRIX (Multiconfiguration Aerosol TRacker of mIXing state): an aerosol microphysical module for global atmospheric models. Atmospheric Chemistry and Physics, 2008, 8, 6003-6035.	1.9	166
11	Climate Impacts From a Removal of Anthropogenic Aerosol Emissions. Geophysical Research Letters, 2018, 45, 1020-1029.	1.5	160
12	Modelled black carbon radiative forcing and atmospheric lifetime in AeroCom Phase II constrained by aircraft observations. Atmospheric Chemistry and Physics, 2014, 14, 12465-12477.	1.9	157
13	Significant atmospheric aerosol pollution caused by world food cultivation. Geophysical Research Letters, 2016, 43, 5394-5400.	1.5	155
14	Simulations of preindustrial, present-day, and 2100 conditions in the NASA GISS composition and climate model G-PUCCINI. Atmospheric Chemistry and Physics, 2006, 6, 4427-4459.	1.9	149
15	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
16	A global modeling study on carbonaceous aerosol microphysical characteristics and radiative effects. Atmospheric Chemistry and Physics, 2010, 10, 7439-7456.	1.9	143
17	The Model Intercomparison Project on the climatic response to Volcanic forcing (VolMIP): experimental design and forcing input data for CMIP6. Geoscientific Model Development, 2016, 9, 2701-2719.	1.3	138
18	CMIP5 historical simulations (1850â€“2012) with GISS ModelE2. Journal of Advances in Modeling Earth Systems, 2014, 6, 441-478.	1.3	133

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19	Impact of heterogeneous sulfate formation at mineral dust surfaces on aerosol loads and radiative forcing in the Goddard Institute for Space Studies general circulation model. Journal of Geophysical Research, 2005, 110, .	3.3	116
20	Historical and future changes in air pollutants from CMIP6 models. Atmospheric Chemistry and Physics, 2020, 20, 14547-14579.	1.9	105
21	Do sulfate and nitrate coatings on mineral dust have important effects on radiative properties and climate modeling?. Journal of Geophysical Research, 2007, 112, .	3.3	99
22	Investigation of global particulate nitrate from the AeroCom phaseÂIII experiment. Atmospheric Chemistry and Physics, 2017, 17, 12911-12940.	1.9	99
23	Coupled Aerosol-Chemistryâ€"Climate Twentieth-Century Transient Model Investigation: Trends in Short-Lived Species and Climate Responses. Journal of Climate, 2011, 24, 2693-2714.	1.2	98
24	Black carbon absorption at the global scale is affected by particle-scale diversity in composition. Nature Communications, 2016, 7, 12361.	5.8	97
25	An overview of the ORACLES (ObseRvations of Aerosols above CLouds and their intEractionS) project: aerosolâ€"cloudâ€"radiation interactions in the southeast Atlantic basin. Atmospheric Chemistry and Physics, 2021, 21, 1507-1563.	1.9	97
26	AeroCom phase III multi-model evaluation of the aerosol life cycle and optical properties using ground- and space-based remote sensing as well as surface in situ observations. Atmospheric Chemistry and Physics, 2021, 21, 87-128.	1.9	96
27	Desert Dust, Industrialization, and Agricultural Fires: Health Impacts of Outdoor Air Pollution in Africa. Journal of Geophysical Research D: Atmospheres, 2019, 124, 4104-4120.	1.2	89
28	Sources, sinks, and transatlantic transport of North African dust aerosol: A multimodel analysis and comparison with remote sensing data. Journal of Geophysical Research D: Atmospheres, 2014, 119, 6259-6277.	1.2	88
29	An AeroCom assessment of black carbon in Arctic snow and sea ice. Atmospheric Chemistry and Physics, 2014, 14, 2399-2417.	1.9	86
30	What controls the vertical distribution of aerosol? Relationships between process sensitivity in HadGEM3â€"UKCA and inter-model variation from AeroCom Phase II. Atmospheric Chemistry and Physics, 2016, 16, 2221-2241.	1.9	82
31	Aerosol direct, indirect, semidirect, and surface albedo effects from sector contributions based on the IPCC AR5 emissions for preindustrial and presentâ€day conditions. Journal of Geophysical Research, 2012, 117, .	3.3	80
32	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.	1.2	80
33	Evaluation of observed and modelled aerosol lifetimes using radioactive tracers of opportunity and an ensemble of 19 global models. Atmospheric Chemistry and Physics, 2016, 16, 3525-3561.	1.9	75
34	Historical (1850â€"2014) Aerosol Evolution and Role on Climate Forcing Using the GISS ModelE2.1 Contribution to CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001978.	1.3	69
35	Historical and future black carbon deposition on the three ice caps: Ice core measurements and model simulations from 1850 to 2100. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7948-7961.	1.2	65
36	Effective radiative forcing from emissions of reactive gases and aerosols â€" a multi-model comparison. Atmospheric Chemistry and Physics, 2021, 21, 853-874.	1.9	65

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37	Role of atmospheric chemistry in the climate impacts of stratospheric volcanic injections. Nature Geoscience, 2016, 9, 652-655.	5.4	61
38	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.	1.9	60
39	Soot microphysical effects on liquid clouds, a multi-model investigation. Atmospheric Chemistry and Physics, 2011, 11, 1051-1064.	1.9	58
40	Aerosols at the poles: an AeroCom Phase II multi-model evaluation. Atmospheric Chemistry and Physics, 2017, 17, 12197-12218.	1.9	58
41	CMIP6 Historical Simulations (1850â€"2014) With GISSâ€E2.1. Journal of Advances in Modeling Earth Systems, 2021, 13, e2019MS002034.	1.3	49
42	Evaluation of aerosol mixing state classes in the GISS modelEâ€MATRIX climate model using singleâ€particle mass spectrometry measurements. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9834-9844.	1.2	42
43	Near-surface meteorology during the Arctic Summer Cloud Ocean Study (ASCOS): evaluation of reanalyses and global climate models. Atmospheric Chemistry and Physics, 2014, 14, 427-445.	1.9	41
44	Climate-driven chemistry and aerosol feedbacks in CMIP6 Earth system models. Atmospheric Chemistry and Physics, 2021, 21, 1105-1126.	1.9	39
45	Climate and air quality impacts due to mitigation of non-methane near-term climate forcers. Atmospheric Chemistry and Physics, 2020, 20, 9641-9663.	1.9	30
46	Aerosol absorption in global models from AeroCom phase III. Atmospheric Chemistry and Physics, 2021, 21, 15929-15947.	1.9	27
47	Climate change penalty and benefit on surface ozone: a global perspective based on CMIP6 earth system models. Environmental Research Letters, 2022, 17, 024014.	2.2	27
48	Bias in CMIP6 models as compared to observed regional dimming and brightening. Atmospheric Chemistry and Physics, 2020, 20, 16023-16040.	1.9	25
49	Asian and Transâ€Pacific Dust: A Multimodel and Multiremote Sensing Observation Analysis. Journal of Geophysical Research D: Atmospheres, 2019, 124, 13534-13559.	1.2	24
50	Reductions in NO ₂ burden over north equatorial Africa from decline in biomass burning in spite of growing fossil fuel use, 2005 to 2017. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	22
51	Future Climate Change Under SSP Emission Scenarios With GISSâ€E2.1. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	22
52	Fast responses on pre-industrial climate from present-day aerosols in a CMIP6 multi-model study. Atmospheric Chemistry and Physics, 2020, 20, 8381-8404.	1.9	18
53	Evaluating secondary inorganic aerosols in three dimensions. Atmospheric Chemistry and Physics, 2016, 16, 10651-10669.	1.9	17
54	Reappraisal of the Climate Impacts of Ozoneâ€Depleting Substances. Geophysical Research Letters, 2020, 47, e2020GL088295.	1.5	16

#	ARTICLE	IF	CITATIONS
55	Changes in anthropogenic precursor emissions drive shifts in the ozone seasonal cycle throughout the northern midlatitude troposphere. Atmospheric Chemistry and Physics, 2022, 22, 3507-3524.	1.9	10
56	MATRIX-VBS (v1.0): implementing an evolving organic aerosol volatility in an aerosol microphysics model. Geoscientific Model Development, 2017, 10, 751-764.	1.3	8
57	Black Carbon and Precipitation: An Energetics Perspective. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032239.	1.2	8
58	Investigations on the anthropogenic reversal of the natural ozone gradient between northern and southern midlatitudes. Atmospheric Chemistry and Physics, 2021, 21, 9669-9679.	1.9	8
59	Changes in satellite retrievals of atmospheric composition over eastern China during the 2020 COVID-19 lockdowns. Atmospheric Chemistry and Physics, 2021, 21, 18333-18350.	1.9	8
60	Evaluation of aerosolâ€cloud interaction in the GISS ModelE using ARM observations. Journal of Geophysical Research D: Atmospheres, 2013, 118, 6383-6395.	1.2	6
61	Intercomparison of the representations of the atmospheric chemistry of pre-industrial methane and ozone in earth system and other global chemistry-transport models. Atmospheric Environment, 2021, 248, 118248.	1.9	5
62	Continental and Ecoregionâ€Specific Drivers of Atmospheric NO₂ and NH₃ Seasonality Over Africa Revealed by Satellite Observations. Global Biogeochemical Cycles, 2021, 35, e2020GB006916.	1.9	5
63	Attribution of Stratospheric and Tropospheric Ozone Changes Between 1850 and 2014 in CMIP6 Models. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	5
64	Understanding Topâ€ofâ€Atmosphere Flux Bias in the AeroCom Phase III Models: A Clearâ€Sky Perspective. Journal of Advances in Modeling Earth Systems, 2021, 13, e2021MS002584.	1.3	4
65	Changes in biomass burning, wetland extent, or agriculture drive atmospheric NH₃ trends in select African regions. Atmospheric Chemistry and Physics, 2021, 21, 16277-16291.	1.9	3
66	Can semi-volatile organic aerosols lead to fewer cloud particles?. Atmospheric Chemistry and Physics, 2018, 18, 14243-14251.	1.9	1
67	The interactive global fire module pyrE (v1.0). Geoscientific Model Development, 2020, 13, 3091-3118.	1.3	1