Andrea Stenke

List of Publications by Year
in descending order

59 papers	2,798 citations	201385 27 h-index	189595 50 g-index
112 all docs	112 docs citations	112 times ranked	3696 citing authors

#	Article	IF	Citations
1	Review of the global models used within phase 1 of the Chemistryâ€“Climate Model Initiative (CCMI). Geoscientific Model Development, 2017, 10, 639-671.	1.3	277
2	Stratospheric aerosol-Observations, processes, and impact on climate. Reviews of Geophysics, 2016, 54, 278-335.	9.0	265
3	Evidence for a continuous decline in lower stratospheric ozone offsetting ozone layer recovery. Atmospheric Chemistry and Physics, 2018, 18, 1379-1394.	1.9	214
4	Emerging role of wetland methane emissions in driving 21st century climate change. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9647-9652.	3.3	201
5	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
6	Estimates of ozone return dates from Chemistry-Climate Model Initiative simulations. Atmospheric Chemistry and Physics, 2018, 18, 8409-8438.	1.9	128
7	The SOCOL version 3.0 chemistryâ€“climate model: description, evaluation, and implications from an advanced transport algorithm. Geoscientific Model Development, 2013, 6, 1407-1427.	1.3	120
8	Global atmospheric sulfur budget under volcanically quiescent conditions: Aerosolâ€chemistryâ€climate model predictions and validation. Journal of Geophysical Research D: Atmospheres, 2015, 120, 256-276.	1.2	81
9	Drivers of the tropospheric ozone budget throughout the 21st century under the medium-high climate scenario RCP 6.0. Atmospheric Chemistry and Physics, 2015, 15, 5887-5902.	1.9	80
10	Ozone sensitivity to varying greenhouse gases and ozone-depleting substances in CCMI-1 simulations. Atmospheric Chemistry and Physics, 2018, 18, 1091-1114.	1.9	56
11	Inter-model comparison of global hydroxyl radical (OH) distributions and their impact on atmospheric methane over the 2000â€“2016 period. Atmospheric Chemistry and Physics, 2019, 19, 13701-13723.	1.9	52
12	Revisiting the Mystery of Recent Stratospheric Temperature Trends. Geophysical Research Letters, 2018, 45, 9919-9933.	1.5	51
13	Skin Cancer Risks Avoided by the Montreal Protocolâ€”Worldwide Modeling Integrating Coupled Climateâ€Chemistry Models with a Risk Model for <scp>UV</scp>. Photochemistry and Photobiology, 2013, 89, 234-246.	1.3	50
14	Impact of solar versus volcanic activity variations on tropospheric temperatures and precipitation during the Dalton Minimum. Climate of the Past, 2014, 10, 921-938.	1.3	48
15	The coupled atmosphereâ€“chemistryâ€“ocean model SOCOL-MPIOM. Geoscientific Model Development, 2014, 7, 2157-2179.	1.3	44
16	Multi-model comparison of the volcanic sulfate deposition from the 1815 eruption of Mt.ÂTambora. Atmospheric Chemistry and Physics, 2018, 18, 2307-2328.	1.9	41
17	No robust evidence of future changes in major stratospheric sudden warmings: a multi-model assessment from CCMI. Atmospheric Chemistry and Physics, 2018, 18, 11277-11287.	1.9	41
18	Tropospheric jet response to Antarctic ozone depletion: An update with Chemistry-Climate Model Initiative (CCMI) models. Environmental Research Letters, 2018, 13, 054024.	2.2	38

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19	Inconsistencies between chemistryâ€“climate models and observed lower stratospheric ozone trends since 1998. Atmospheric Chemistry and Physics, 2020, 20, 9737-9752.	1.9	37
20	Stratospheric Injection of Brominated Very Shortâ€Lived Substances: Aircraft Observations in the Western Pacific and Representation in Global Models. Journal of Geophysical Research D: Atmospheres, 2018, 123, 5690-5719.	1.2	36
21	Reductions in the deposition of sulfur and selenium to agricultural soils pose risk of future nutrient deficiencies. Communications Earth & Environment, 2021, 2, .	2.6	35
22	Model physics and chemistry causing intermodel disagreement within the VolMIP-Tambora Interactive Stratospheric Aerosol ensemble. Atmospheric Chemistry and Physics, 2021, 21, 3317-3343.	1.9	33
23	Formaldehyde in the Tropical Western Pacific: Chemical Sources and Sinks, Convective Transport, and Representation in CAMâ€Chem and the CCMI Models. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11201-11226.	1.2	32
24	Large-scale tropospheric transport in the Chemistryâ€“Climate Model Initiative (CCMI) simulations. Atmospheric Chemistry and Physics, 2018, 18, 7217-7235.	1.9	32
25	Quantifying the effect of mixing on the mean age of air in CCMVal-2 and CCMI-1 models. Atmospheric Chemistry and Physics, 2018, 18, 6699-6720.	1.9	32
26	Improved tropospheric and stratospheric sulfur cycle in the aerosolâ€“chemistryâ€“climate model SOCOL-AERv2. Geoscientific Model Development, 2019, 12, 3863-3887.	1.3	31
27	The influence of mixing on the stratospheric age of air changes in the 21st century. Atmospheric Chemistry and Physics, 2019, 19, 921-940.	1.9	29
28	Decadal reduction of Chinese agriculture after a regional nuclear war. Earth's Future, 2015, 3, 37-48.	2.4	28
29	Tropospheric ozone in CCMI models and Gaussian process emulation to understand biases in the SOCOLv3 chemistryâ€“climate model. Atmospheric Chemistry and Physics, 2018, 18, 16155-16172.	1.9	27
30	The effect of atmospheric nudging on the stratospheric residual circulation in chemistryâ€“climate models. Atmospheric Chemistry and Physics, 2019, 19, 11559-11586.	1.9	27
31	Constraining Atmospheric Selenium Emissions Using Observations, Global Modeling, and Bayesian Inference. Environmental Science & Technology, 2020, 54, 7146-7155.	4.6	27
32	Springtime arctic ozone depletion forces northern hemisphere climate anomalies. Nature Geoscience, 2022, 15, 541-547.	5.4	27
33	Climate and chemistry effects of a regional scale nuclear conflict. Atmospheric Chemistry and Physics, 2013, 13, 9713-9729.	1.9	26
34	The role of methane in projections of 21st century stratospheric water vapour. Atmospheric Chemistry and Physics, 2016, 16, 13067-13080.	1.9	26
35	Deriving Global OH Abundance and Atmospheric Lifetimes for Longâ€Lived Gases: A Search for CH₃CCl₃ Alternatives. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11,914.	1.2	26
36	Isotopic source signatures: Impact of regional variability on the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:msup><mml:mi>Î´</mml:mi><mml:mrow><mml:mn>13</mml:mn></mml:mrow></mml:msup><m trend and spatial distribution. Atmospheric Environment, 2018, 174, 99-111.	1.9	24

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37	A machine learning examination of hydroxyl radical differences among model simulations for CCMI-1. Atmospheric Chemistry and Physics, 2020, 20, 1341-1361.	1.9	24
38	Clear-sky ultraviolet radiation modelling using output from the Chemistry Climate Model Initiative. Atmospheric Chemistry and Physics, 2019, 19, 10087-10110.	1.9	22
39	Exploring accumulation-mode H₂SO₄ versus SO₂ stratospheric sulfate geoengineering in a sectional aerosolâ€“chemistryâ€“climate model. Atmospheric Chemistry and Physics, 2019, 19, 4877-4897.	1.9	22
40	Forcing of stratospheric chemistry and dynamics during the Dalton Minimum. Atmospheric Chemistry and Physics, 2013, 13, 10951-10967.	1.9	20
41	On the aliasing of the solar cycle in the lower stratospheric tropical temperature. Journal of Geophysical Research D: Atmospheres, 2017, 122, 9076-9093.	1.2	19
42	Tropospheric Ozone at Northern Mid-Latitudes: Modeled and Measured Long-Term Changes. Atmosphere, 2017, 8, 163.	1.0	19
43	Implications of potential future grand solar minimum for ozone layer and climate. Atmospheric Chemistry and Physics, 2018, 18, 3469-3483.	1.9	18
44	The representation of solar cycle signals in stratospheric ozone â€“ PartÂ2: Analysis of global models. Atmospheric Chemistry and Physics, 2018, 18, 11323-11343.	1.9	18
45	Mapping the drivers of uncertainty in atmospheric selenium deposition with global sensitivity analysis. Atmospheric Chemistry and Physics, 2020, 20, 1363-1390.	1.9	17
46	Impacts of MtÂPinatubo volcanic aerosol on the tropical stratosphere in chemistryâ€“climate model simulations using CCMI and CMIP6 stratospheric aerosol data. Atmospheric Chemistry and Physics, 2017, 17, 13139-13150.	1.9	16
47	Natural control on ozone pollution. Nature Climate Change, 2020, 10, 101-102.	8.1	16
48	Atmosphereâ€“oceanâ€“aerosolâ€“chemistryâ€“climate model SOCOLv4.0: description and evaluation. Geoscientific Model Development, 2021, 14, 5525-5560.	1.3	16
49	Stratospheric aerosol evolution after Pinatubo simulated with a coupled size-resolved aerosolâ€“chemistryâ€“climate model, SOCOL-AERv1.0. Geoscientific Model Development, 2018, 11, 2633-2647.	1.3	16
50	Evaluating the Relationship between Interannual Variations in the Antarctic Ozone Hole and Southern Hemisphere Surface Climate in Chemistryâ€“Climate Models. Journal of Climate, 2019, 32, 3131-3151.	1.2	13
51	Decision strategies for policy decisions under uncertainties: The case of mitigation measures addressing methane emissions from ruminants. Environmental Science and Policy, 2015, 52, 110-119.	2.4	9
52	Evaluation of polar stratospheric clouds in the global chemistryâ€“climate model SOCOLv3.1 by comparison with CALIPSO spaceborne lidar measurements. Geoscientific Model Development, 2021, 14, 935-959.	1.3	7
53	Modeling the Sulfate Aerosol Evolution After Recent Moderate Volcanic Activity, 2008â€“2012. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035472.	1.2	7
54	Attribution of Chemistry-Climate Model Initiative (CCMI) ozone radiative flux bias from satellites. Atmospheric Chemistry and Physics, 2020, 20, 281-301.	1.9	6

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55	The response of mesospheric H₂O and CO to solar irradiance variability in models and observations. Atmospheric Chemistry and Physics, 2021, 21, 201-216.	1.9	6
56	An upper-branch Brewerâ€“Dobson circulation index for attribution of stratospheric variability and improved ozone and temperature trend analysis. Atmospheric Chemistry and Physics, 2016, 16, 15485-15500.	1.9	5
57	Ultraviolet Radiation modelling using output from the Chemistry Climate Model Initiative. , 2019, 19, 10087-10110.		5
58	Reactive nitrogen (NO_{<i>y</i>}) and ozone responses to energetic electron precipitation during Southern Hemisphere winter. Atmospheric Chemistry and Physics, 2019, 19, 9485-9494.	1.9	5
59	Methane Modeling: From Process Modeling to Global Climate Models. Research Topics in Aerospace, 2012, , 781-797.	0.6	1