Sandip Dhomse

List of Publications by Year
in descending order

104 papers	5,719 citations	76196 40 h-index	91712 69 g-index
184 all docs	184 docs citations	184 times ranked	4749 citing authors

#	Article	IF	Citations
1	Chemistryâ€"Climate Model Simulations of Twenty-First Century Stratospheric Climate and Circulation Changes. Journal of Climate, 2010, 23, 5349-5374.	1.2	280
2	Impact of stratospheric ozone on Southern Hemisphere circulation change: A multimodel assessment. Journal of Geophysical Research, 2010, 115, .	3.3	280
3	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
4	Multi-model assessment of stratospheric ozone return dates and ozone recovery in CCMVal-2 models. Atmospheric Chemistry and Physics, 2010, 10, 9451-9472.	1.9	215
5	Strong constraints on aerosolâ€"cloud interactions from volcanic eruptions. Nature, 2017, 546, 485-491.	13.7	191
6	Detecting recovery of the stratospheric ozone layer. Nature, 2017, 549, 211-218.	13.7	182
7	Multimodel assessment of the upper troposphere and lower stratosphere: Tropics and global trends. Journal of Geophysical Research, 2010, 115, .	3.3	171
8	Review of the formulation of presentâ€generation stratospheric chemistryâ€climate models and associated external forcings. Journal of Geophysical Research, 2010, 115, .	3.3	150
9	The increasing threat to stratospheric ozone from dichloromethane. Nature Communications, 2017, 8, 15962.	5.8	147
10	Efficiency of short-lived halogens at influencing climate through depletion of stratospheric ozone. Nature Geoscience, 2015, 8, 186-190.	5.4	146
11	Multimodel climate and variability of the stratosphere. Journal of Geophysical Research, 2011, 116, .	3.3	139
12	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
13	Ozone trends at northern mid- and high latitudes â€" a European perspective. Annales Geophysicae, 2008, 26, 1207-1220.	0.6	128
14	Estimates of ozone return dates from Chemistry-Climate Model Initiative simulations. Atmospheric Chemistry and Physics, 2018, 18, 8409-8438.	1.9	128
15	Recent Northern Hemisphere stratospheric HCl increase due to atmospheric circulation changes. Nature, 2014, 515, 104-107.	13.7	110
16	Description and evaluation of the UKCA stratosphereâ€"troposphere chemistry scheme (StratTrop vn) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.3	109
17	Stratosphereâ€troposphere coupling and annular mode variability in chemistryâ€climate models. Journal of Geophysical Research, 2010, 115, .	3.3	107
18	On the possible causes of recent increases in northern hemispheric total ozone from a statistical analysis of satellite data from 1979 to 2003. Atmospheric Chemistry and Physics, 2006, 6, 1165-1180.	1.9	103

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19	Quantifying the ozone and ultraviolet benefits already achieved by the Montreal Protocol. Nature Communications, 2015, 6, 7233.	5.8	99
20	Dynamical control of NH and SH winter/spring total ozone from GOME observations in 1995â€"2002. Geophysical Research Letters, 2003, 30, .	1.5	92
21	On the Cause of Recent Variations in Lower Stratospheric Ozone. Geophysical Research Letters, 2018, 45, 5718-5726.	1.5	87
22	Decline and recovery of total column ozone using a multimodel time series analysis. Journal of Geophysical Research, 2010, 115, .	3.3	74
23	Stratospheric ozone loss over the Eurasian continent induced by the polar vortex shift. Nature Communications, 2018, 9, 206.	5.8	69
24	Using transport diagnostics to understand chemistry climate model ozone simulations. Journal of Geophysical Research, 2011, 116, .	3.3	68
25	Multimodel assessment of the upper troposphere and lower stratosphere: Extratropics. Journal of Geophysical Research, 2010, 115, .	3.3	67
26	Multimodel assessment of the factors driving stratospheric ozone evolution over the 21st century. Journal of Geophysical Research, 2010, 115, .	3.3	66
27	Aerosol microphysics simulations of the Mt.~Pinatubo eruption with the UM-UKCA composition-climate model. Atmospheric Chemistry and Physics, 2014, 14, 11221-11246.	1.9	62
28	The relationship between tropospheric wave forcing and tropical lower stratospheric water vapor. Atmospheric Chemistry and Physics, 2008, 8, 471-480.	1.9	58
29	Delay in recovery of the Antarctic ozone hole from unexpected CFC-11 emissions. Nature Communications, 2019, 10, 5781.	5.8	58
30	The Interactive Stratospheric Aerosol Model Intercomparison ProjectÂ(ISA-MIP): motivation and experimental design. Geoscientific Model Development, 2018, 11, 2581-2608.	1.3	57
31	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
32	Chemistryâ€climate model simulations of spring Antarctic ozone. Journal of Geophysical Research, 2010, 115, .	3.3	51
33	A multi-model intercomparison of halogenated very short-lived substances (TransCom-VSLS): linking oceanic emissions and tropospheric transport for a reconciled estimate of the stratospheric source gas injection of bromine. Atmospheric Chemistry and Physics, 2016, 16, 9163-9187.	1.9	51
34	Revisiting the Mystery of Recent Stratospheric Temperature Trends. Geophysical Research Letters, 2018, 45, 9919-9933.	1.5	51
35	Determination of the atmospheric lifetime and global warming potential of sulfur hexafluoride using a three-dimensional model. Atmospheric Chemistry and Physics, 2017, 17, 883-898.	1.9	49
36	Revisiting the hemispheric asymmetry in midlatitude ozone changes following the Mount Pinatubo eruption: A 3â€Ð model study. Geophysical Research Letters, 2015, 42, 3038-3047.	1.5	47

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37	Interactions of meteoric smoke particles with sulphuric acid in the Earth's stratosphere. Atmospheric Chemistry and Physics, 2012, 12, 4387-4398.	1.9	45
38	Effects of meridional sea surface temperature changes on stratospheric temperature and circulation. Advances in Atmospheric Sciences, 2014, 31, 888-900.	1.9	45
39	Age of air as a diagnostic for transport timescales in global models. Geoscientific Model Development, 2018, 11, 3109-3130.	1.3	44
40	COVID-19 lockdown-induced changes in NO₂ levels across India observed by multi-satellite and surface observations. Atmospheric Chemistry and Physics, 2021, 21, 5235-5251.	1.9	44
41	On the ambiguous nature of the 11â€‰year solar cycle signal in upper stratospheric ozone. Geophysical Research Letters, 2016, 43, 7241-7249.	1.5	43
42	Multimodel estimates of atmospheric lifetimes of longâ€lived ozoneâ€depleting substances: Present and future. Journal of Geophysical Research D: Atmospheres, 2014, 119, 2555-2573.	1.2	42
43	Growth in stratospheric chlorine from shortâ€lived chemicals not controlled by the Montreal Protocol. Geophysical Research Letters, 2015, 42, 4573-4580.	1.5	42
44	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
45	Exploring How Eruption Source Parameters Affect Volcanic Radiative Forcing Using Statistical Emulation. Journal of Geophysical Research D: Atmospheres, 2019, 124, 964-985.	1.2	40
46	Modelling future changes to the stratospheric source gas injection of biogenic bromocarbons. Geophysical Research Letters, 2012, 39, .	1.5	38
47	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
48	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
49	Modelling the effect of denitrification on polar ozone depletion for Arctic winter 2004/2005. Atmospheric Chemistry and Physics, 2011, 11, 6559-6573.	1.9	35
50	Climate warming and decreasing total column ozone over the Tibetan Plateau during winter and spring. Tellus, Series B: Chemical and Physical Meteorology, 2022, 66, 23415.	0.8	35
51	Recent Trends in Stratospheric Chlorine From Very Shortâ€Lived Substances. Journal of Geophysical Research D: Atmospheres, 2019, 124, 2318-2335.	1.2	34
52	Arctic Ozone Depletion in 2019/20: Roles of Chemistry, Dynamics and the Montreal Protocol. Geophysical Research Letters, 2021, 48, e2020GL091911.	1.5	34
53	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
54	Anthropogenic forcing of the Northern Annular Mode in CCMValâ€2 models. Journal of Geophysical Research, 2010, 115, .	3.3	32

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55	Retrieval of water vapor vertical distributions in the upper troposphere and the lower stratosphere from SCIAMACHY limb measurements. Atmospheric Measurement Techniques, 2011, 4, 933-954.	1.2	32
56	Evaluation of cloud convection and tracer transport in a three-dimensional chemical transport model. Atmospheric Chemistry and Physics, 2011, 11, 5783-5803.	1.9	29
57	Plutoniumâ€238 observations as a test of modeled transport and surface deposition of meteoric smoke particles. Geophysical Research Letters, 2013, 40, 4454-4458.	1.5	29
58	Stratospheric ozone depletion from future nitrous oxide increases. Atmospheric Chemistry and Physics, 2014, 14, 12967-12982.	1.9	29
59	A measurement-based verification framework for UK greenhouse gas emissions: an overview of the Greenhouse gAs Uk and Global Emissions (GAUGE) project. Atmospheric Chemistry and Physics, 2018, 18, 11753-11777.	1.9	29
60	Large Impacts, Past and Future, of Ozoneâ€Depleting Substances on Brewerâ€Dobson Circulation Trends: A Multimodel Assessment. Journal of Geophysical Research D: Atmospheres, 2019, 124, 6669-6680.	1.2	28
61	Solar response in tropical stratospheric ozone: a 3-D chemical transport model study using ERA reanalyses. Atmospheric Chemistry and Physics, 2011, 11, 12773-12786.	1.9	27
62	Climate impact of stratospheric ozone recovery. Geophysical Research Letters, 2013, 40, 2796-2800.	1.5	27
63	Evaluation of simulated photolysis rates and their response to solar irradiance variability. Journal of Geophysical Research D: Atmospheres, 2016, 121, 6066-6084.	1.2	27
64	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
65	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
66	The potential to narrow uncertainty in projections of stratospheric ozone over the 21st century. Atmospheric Chemistry and Physics, 2010, 10, 9473-9486.	1.9	25
67	Stratospheric O₃ changes during 2001â€“2010: the small role of solar flux variations in a chemical transport model. Atmospheric Chemistry and Physics, 2013, 13, 10113-10123.	1.9	25
68	Longitudinal Asymmetric Trends of Tropical Cold-Point Tropopause Temperature and Their Link to Strengthened Walker Circulation. Journal of Climate, 2016, 29, 7755-7771.	1.2	25
69	A study of upper troposphere and lower stratosphere water vapor above the Tibetan Plateau using AIRS and MLS data. Atmospheric Science Letters, 2011, 12, 233-239.	0.8	22
70	A refined method for calculating equivalent effective stratospheric chlorine. Atmospheric Chemistry and Physics, 2018, 18, 601-619.	1.9	22
71	Clear-sky ultraviolet radiation modelling using output from the Chemistry Climate Model Initiative. Atmospheric Chemistry and Physics, 2019, 19, 10087-10110.	1.9	22
72	Evaluating the simulated radiative forcings, aerosol properties, and stratospheric warmings from the 1963 Mt Agung, 1982 El ChichÃ³n, and 1991 Mt Pinatubo volcanic aerosol clouds. Atmospheric Chemistry and Physics, 2020, 20, 13627-13654.	1.9	22

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73	Evaluation of a regional air quality model using satellite column NO₂: treatment of observation errors and model boundary conditions and emissions. Atmospheric Chemistry and Physics, 2015, 15, 5611-5626.	1.9	20
74	Evaluation of balloon and satellite water vapour measurements in the Southern tropical and subtropical UTLS during the HIBISCUS campaign. Atmospheric Chemistry and Physics, 2009, 9, 5299-5319.	1.9	19
75	The Unusual Stratospheric Arctic Winter 2019/20: Chemical Ozone Loss From Satellite Observations and TOMCAT Chemical Transport Model. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034386.	1.2	19
76	Dynamically controlled ozone decline in the tropical mid-stratosphere observed by SCIAMACHY. Atmospheric Chemistry and Physics, 2019, 19, 767-783.	1.9	18
77	An updated version of a gap-free monthly mean zonal mean ozone database. Earth System Science Data, 2018, 10, 1473-1490.	3.7	18
78	Effects of stratosphereâ€troposphere chemistry coupling on tropospheric ozone. Journal of Geophysical Research, 2010, 115, .	3.3	17
79	Atmospheric lifetimes, infrared absorption spectra, radiative forcings and global warming potentials of NF₃ and CF₃CF₂ClÂ(CFC-115). Atmospheric Chemistry and Physics, 2016, 16, 11451-11463.	1.9	16
80	Meteoric Smoke Deposition in the Polar Regions: A Comparison of Measurements With Global Atmospheric Models. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11,112.	1.2	16
81	Description and Evaluation of the specified-dynamics experiment in the Chemistry-Climate Model Initiative. Atmospheric Chemistry and Physics, 2020, 20, 3809-3840.	1.9	16
82	Reconciling the climate and ozone response to the 1257 CE Mount Samalas eruption. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 26651-26659.	3.3	15
83	Analysis and attribution of total column ozone changes over the Tibetan Plateau during 1979â€“2017. Atmospheric Chemistry and Physics, 2020, 20, 8627-8639.	1.9	15
84	Satellite observations of stratospheric hydrogen fluoride and comparisons with SLIMCAT calculations. Atmospheric Chemistry and Physics, 2016, 16, 10501-10519.	1.9	14
85	Satellite observations of stratospheric carbonyl fluoride. Atmospheric Chemistry and Physics, 2014, 14, 11915-11933.	1.9	13
86	Evolving particle size is the key to improved volcanic forcings. Past Global Change Magazine, 2015, 23, 52-53.	0.4	12
87	Stratospheric ozone loss in the Arctic winters between 2005 and 2013 derived with ACE-FTS measurements. Atmospheric Chemistry and Physics, 2019, 19, 577-601.	1.9	10
88	Phosgene in the Upper Troposphere and Lower Stratosphere: A Marker for Product Gas Injection Due to Chlorineâ€Containing Very Short Lived Substances. Geophysical Research Letters, 2019, 46, 1032-1039.	1.5	10
89	Modelling the potential impacts of the recent, unexpected increase in CFC-11 emissions on total column ozone recovery. Atmospheric Chemistry and Physics, 2020, 20, 7153-7166.	1.9	10
90	Ozone trends in the vertical structure of Upper Troposphere and Lower stratosphere over the Indian monsoon region. International Journal of Environmental Science and Technology, 2014, 11, 529-542.	1.8	9

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91	Stratospheric fluorine as a tracer of circulation changes: comparison between infrared remoteâ€sensing observations and simulations with five modern reanalyses. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034995.	1.2	8
92	Fifteen Years of HFCâ€134a Satellite Observations: Comparisons With SLIMCAT Calculations. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033208.	1.2	7
93	Unprecedented Spring 2020 Ozone Depletion in the Context of 20ÂYears of Measurements at Eureka, Canada. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034365.	1.2	7
94	A single-peak-structured solar cycle signal in stratospheric ozone based on Microwave Limb Sounder observations and model simulations. Atmospheric Chemistry and Physics, 2022, 22, 903-916.	1.9	7
95	Evaluation of the inter-annual variability of stratospheric chemical composition in chemistry-climate models using ground-based multi species time series. Journal of Atmospheric and Solar-Terrestrial Physics, 2016, 145, 61-84.	0.6	6
96	Influence of the wintertime North Atlantic Oscillation on European tropospheric composition: an observational and modelling study. Atmospheric Chemistry and Physics, 2018, 18, 8389-8408.	1.9	6
97	Model sensitivity studies of the decrease in atmospheric carbon tetrachloride. Atmospheric Chemistry and Physics, 2016, 16, 15741-15754.	1.9	5
98	Ultraviolet Radiation modelling using output from the Chemistry Climate Model Initiative. , 2019, 19, 10087-10110.		5
99	ML-TOMCAT: machine-learning-based satellite-corrected global stratospheric ozone profile data set from a chemical transport model. Earth System Science Data, 2021, 13, 5711-5729.	3.7	5
100	Constraining the N₂O₅ UV absorption cross section from spectroscopic trace gas measurements in the tropical mid-stratosphere. Atmospheric Chemistry and Physics, 2014, 14, 9555-9566.	1.9	4
101	Direct and indirect effects of solar variations on stratospheric ozone and temperature. Science Bulletin, 2013, 58, 3840-3846.	1.7	2
102	Model study of the impacts of emissions, chemical and dynamical processes on the CO variability in the tropical upper troposphere and lower stratosphere. Tellus, Series B: Chemical and Physical Meteorology, 2015, 67, 27475.	0.8	2
103	Preliminary observations and simulation of nocturnal variations of airglow temperature and emission rates at Pune (18.5Â°N), India. Journal of Atmospheric and Solar-Terrestrial Physics, 2016, 149, 59-68.	0.6	0
104	Recovery of the first ever multi-year lidar dataset of the stratospheric aerosol layer, from Lexington, MA, and Fairbanks, AK, January 1964 to July 1965. Earth System Science Data, 2021, 13, 4407-4423.	3.7	0