Sandip Dhomse

List of Publications by Year
in descending order

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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	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
2	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
3	Arctic Ozone Depletion in 2019/20: Roles of Chemistry, Dynamics and the Montreal Protocol. Geophysical Research Letters, 2021, 48, e2020GL091911.	1.5	34
4	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
5	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
6	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
7	Fifteen Years of HFCâ€134a Satellite Observations: Comparisons With SLIMCAT Calculations. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033208.	1.2	7
8	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
9	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
10	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
11	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
12	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
13	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
14	Description and evaluation of the UKCA stratosphereâ€“troposphere chemistry scheme (StratTrop vn) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.3	109
15	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
16	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
17	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
18	Ultraviolet Radiation modelling using output from the Chemistry Climate Model Initiative. , 2019, 19, 10087-10110.		5

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19	Clear-sky ultraviolet radiation modelling using output from the Chemistry Climate Model Initiative. Atmospheric Chemistry and Physics, 2019, 19, 10087-10110.	1.9	22
20	Recent Trends in Stratospheric Chlorine From Very Shortâ€Lived Substances. Journal of Geophysical Research D: Atmospheres, 2019, 124, 2318-2335.	1.2	34
21	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
22	Dynamically controlled ozone decline in the tropical mid-stratosphere observed by SCIAMACHY. Atmospheric Chemistry and Physics, 2019, 19, 767-783.	1.9	18
23	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
24	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
25	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
26	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
27	Delay in recovery of the Antarctic ozone hole from unexpected CFC-11 emissions. Nature Communications, 2019, 10, 5781.	5.8	58
28	Stratospheric ozone loss over the Eurasian continent induced by the polar vortex shift. Nature Communications, 2018, 9, 206.	5.8	69
29	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
30	A refined method for calculating equivalent effective stratospheric chlorine. Atmospheric Chemistry and Physics, 2018, 18, 601-619.	1.9	22
31	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
32	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
33	The Interactive Stratospheric Aerosol Model Intercomparison ProjectÂ(ISA-MIP): motivation and experimental design. Geoscientific Model Development, 2018, 11, 2581-2608.	1.3	57
34	Age of air as a diagnostic for transport timescales in global models. Geoscientific Model Development, 2018, 11, 3109-3130.	1.3	44
35	On the Cause of Recent Variations in Lower Stratospheric Ozone. Geophysical Research Letters, 2018, 45, 5718-5726.	1.5	87
36	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

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37	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
38	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
39	Estimates of ozone return dates from Chemistry-Climate Model Initiative simulations. Atmospheric Chemistry and Physics, 2018, 18, 8409-8438.	1.9	128
40	Revisiting the Mystery of Recent Stratospheric Temperature Trends. Geophysical Research Letters, 2018, 45, 9919-9933.	1.5	51
41	An updated version of a gap-free monthly mean zonal mean ozone database. Earth System Science Data, 2018, 10, 1473-1490.	3.7	18
42	Strong constraints on aerosolâ€“cloud interactions from volcanic eruptions. Nature, 2017, 546, 485-491.	13.7	191
43	Detecting recovery of the stratospheric ozone layer. Nature, 2017, 549, 211-218.	13.7	182
44	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
45	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
46	The increasing threat to stratospheric ozone from dichloromethane. Nature Communications, 2017, 8, 15962.	5.8	147
47	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
48	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
49	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
50	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
51	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
52	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
53	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
54	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

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55	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
56	Satellite observations of stratospheric hydrogen fluoride and comparisons with SLIMCAT calculations. Atmospheric Chemistry and Physics, 2016, 16, 10501-10519.	1.9	14
57	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
58	Model sensitivity studies of the decrease in atmospheric carbon tetrachloride. Atmospheric Chemistry and Physics, 2016, 16, 15741-15754.	1.9	5
59	Growth in stratospheric chlorine from shortâ€lived chemicals not controlled by the Montreal Protocol. Geophysical Research Letters, 2015, 42, 4573-4580.	1.5	42
60	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
61	Quantifying the ozone and ultraviolet benefits already achieved by the Montreal Protocol. Nature Communications, 2015, 6, 7233.	5.8	99
62	Efficiency of short-lived halogens at influencing climate through depletion of stratospheric ozone. Nature Geoscience, 2015, 8, 186-190.	5.4	146
63	Revisiting the hemispheric asymmetry in midlatitude ozone changes following the Mount Pinatubo eruption: A 3â€D model study. Geophysical Research Letters, 2015, 42, 3038-3047.	1.5	47
64	Evolving particle size is the key to improved volcanic forcings. Past Global Change Magazine, 2015, 23, 52-53.	0.4	12
65	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
66	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
67	Recent Northern Hemisphere stratospheric HCl increase due to atmospheric circulation changes. Nature, 2014, 515, 104-107.	13.7	110
68	Effects of meridional sea surface temperature changes on stratospheric temperature and circulation. Advances in Atmospheric Sciences, 2014, 31, 888-900.	1.9	45
69	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
70	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
71	Stratospheric ozone depletion from future nitrous oxide increases. Atmospheric Chemistry and Physics, 2014, 14, 12967-12982.	1.9	29
72	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

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73	Satellite observations of stratospheric carbonyl fluoride. Atmospheric Chemistry and Physics, 2014, 14, 11915-11933.	1.9	13
74	Direct and indirect effects of solar variations on stratospheric ozone and temperature. Science Bulletin, 2013, 58, 3840-3846.	1.7	2
75	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
76	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
77	Climate impact of stratospheric ozone recovery. Geophysical Research Letters, 2013, 40, 2796-2800.	1.5	27
78	Interactions of meteoric smoke particles with sulphuric acid in the Earth's stratosphere. Atmospheric Chemistry and Physics, 2012, 12, 4387-4398.	1.9	45
79	Modelling future changes to the stratospheric source gas injection of biogenic bromocarbons. Geophysical Research Letters, 2012, 39, .	1.5	38
80	Multimodel climate and variability of the stratosphere. Journal of Geophysical Research, 2011, 116, .	3.3	139
81	Using transport diagnostics to understand chemistry climate model ozone simulations. Journal of Geophysical Research, 2011, 116, .	3.3	68
82	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
83	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
84	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
85	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
86	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
87	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
88	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
89	Decline and recovery of total column ozone using a multimodel time series analysis. Journal of Geophysical Research, 2010, 115, .	3.3	74
90	Chemistryâ€“Climate Model Simulations of Twenty-First Century Stratospheric Climate and Circulation Changes. Journal of Climate, 2010, 23, 5349-5374.	1.2	280

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91	Anthropogenic forcing of the Northern Annular Mode in CCMValâ€2 models. Journal of Geophysical Research, 2010, 115, .	3.3	32
92	Effects of stratosphereâ€troposphere chemistry coupling on tropospheric ozone. Journal of Geophysical Research, 2010, 115, .	3.3	17
93	Chemistryâ€climate model simulations of spring Antarctic ozone. Journal of Geophysical Research, 2010, 115, .	3.3	51
94	Multimodel assessment of the upper troposphere and lower stratosphere: Tropics and global trends. Journal of Geophysical Research, 2010, 115, .	3.3	171
95	Review of the formulation of presentâ€generation stratospheric chemistryâ€climate models and associated external forcings. Journal of Geophysical Research, 2010, 115, .	3.3	150
96	Stratosphereâ€troposphere coupling and annular mode variability in chemistryâ€climate models. Journal of Geophysical Research, 2010, 115, .	3.3	107
97	Multimodel assessment of the upper troposphere and lower stratosphere: Extratropics. Journal of Geophysical Research, 2010, 115, .	3.3	67
98	Impact of stratospheric ozone on Southern Hemisphere circulation change: A multimodel assessment. Journal of Geophysical Research, 2010, 115, .	3.3	280
99	Multimodel assessment of the factors driving stratospheric ozone evolution over the 21st century. Journal of Geophysical Research, 2010, 115, .	3.3	66
100	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
101	Ozone trends at northern mid- and high latitudes â€“ a European perspective. Annales Geophysicae, 2008, 26, 1207-1220.	0.6	128
102	The relationship between tropospheric wave forcing and tropical lower stratospheric water vapor. Atmospheric Chemistry and Physics, 2008, 8, 471-480.	1.9	58
103	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
104	Dynamical control of NH and SH winter/spring total ozone from GOME observations in 1995â€“2002. Geophysical Research Letters, 2003, 30, .	1.5	92