Makoto Deushi

List of Publications by Year
in descending order

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91
papers

4,822
citations

136740
32
h-index

106150
65
g-index

130
all docs

130
docs citations

130
times ranked

5018
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	Air quality improvements are projected to weaken the Atlantic meridional overturning circulation through radiative forcing effects. Communications Earth & Environment, 2022, 3, .	2.6	5
4	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
5	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
6	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
7	Evaluating stratospheric ozone and water vapour changes in CMIP6 models from 1850 to 2100. Atmospheric Chemistry and Physics, 2021, 21, 5015-5061.	1.9	54
8	Mapping Yearly Fine Resolution Global Surface Ozone through the Bayesian Maximum Entropy Data Fusion of Observations and Model Output for 1990â€“2017. Environmental Science & Technology, 2021, 55, 4389-4398.	4.6	47
9	Tropospheric ozone in CMIP6 simulations. Atmospheric Chemistry and Physics, 2021, 21, 4187-4218.	1.9	89
10	Influence of the El NiÃ±oâ€“Southern Oscillation on entry stratospheric water vapor in coupled chemistryâ€“ocean CCMI and CMIP6 models. Atmospheric Chemistry and Physics, 2021, 21, 3725-3740.	1.9	8
11	The Climate Response to Emissions Reductions Due to COVIDâ€•19: Initial Results From CovidMIP. Geophysical Research Letters, 2021, 48, e2020GL091883.	1.5	43
12	Comparison of three aerosol representations of NHM-Chem (v1.0) for the simulations of air quality and climate-relevant variables. Geoscientific Model Development, 2021, 14, 2235-2264.	1.3	16
13	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
14	Reappraisal of the Climate Impacts of Ozoneâ€•Depleting Substances. Geophysical Research Letters, 2020, 47, e2020GL088295.	1.5	16
15	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
16	Historical total ozone radiative forcing derived from CMIP6 simulations. Npj Climate and Atmospheric Science, 2020, 3, .	2.6	44
17	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
18	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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19	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
20	Global and Arctic effective radiative forcing of anthropogenic gases and aerosols in MRI-ESM2.0. Progress in Earth and Planetary Science, 2020, 7, .	1.1	56
21	Tropospheric Ozone Assessment Report. Elementa, 2020, 8, .	1.1	52
22	On the role of trend and variability in the hydroxyl radical (OH) in the global methane budget. Atmospheric Chemistry and Physics, 2020, 20, 13011-13022.	1.9	18
23	Historical and future changes in air pollutants from CMIP6 models. Atmospheric Chemistry and Physics, 2020, 20, 14547-14579.	1.9	105
24	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
25	Projecting ozone hole recovery using an ensemble of chemistryâ€“climate models weighted by model performance and independence. Atmospheric Chemistry and Physics, 2020, 20, 9961-9977.	1.9	16
26	Bias Correction of Multi-sensor Total Column Ozone Satellite Data for 1978â€“2017. Journal of the Meteorological Society of Japan, 2020, 98, 353-377.	0.7	1
27	Influence of Arctic stratospheric ozone on surface climate in CCMI models. Atmospheric Chemistry and Physics, 2019, 19, 9253-9268.	1.9	15
28	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
29	Clear-sky ultraviolet radiation modelling using output from the Chemistry Climate Model Initiative. Atmospheric Chemistry and Physics, 2019, 19, 10087-10110.	1.9	22
30	The Meteorological Research Institute Earth System Model Version 2.0, MRI-ESM2.0: Description and Basic Evaluation of the Physical Component. Journal of the Meteorological Society of Japan, 2019, 97, 931-965.	0.7	434
31	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
32	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
33	NHM-Chem, the Japan Meteorological Agency's Regional Meteorology â€“ Chemistry Model: Model Evaluations toward the Consistent Predictions of the Chemical, Physical, and Optical Properties of Aerosols. Journal of the Meteorological Society of Japan, 2019, 97, 337-374.	0.7	37
34	A new method (M&lt;sup&gt;3&lt;/sup&gt;Fusion v1) for combining observations and multiple model output for an improved estimate of the global surface ozone distribution. Geoscientific Model Development, 2019, 12, 955-978.	1.3	23
35	Ozoneâ€”climate interactions and effects on solar ultraviolet radiation. Photochemical and Photobiological Sciences, 2019, 18, 602-640.	1.6	126
36	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

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37	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
38	Detectability assessment of a satellite sensor for lower tropospheric ozone responses to its precursors emission changes in East Asian summer. Scientific Reports, 2019, 9, 19629.	1.6	6
39	Impact of the tropical cyclone Nilam on the vertical distribution of carbon monoxide over Chennai on the Indian peninsula. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 1091-1105.	1.0	6
40	Stratospheric ozone loss over the Eurasian continent induced by the polar vortex shift. Nature Communications, 2018, 9, 206.	5.8	69
41	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
42	Large-scale tropospheric transport in the Chemistryâ€“Climate Model Initiative (CCMI) simulations. Atmospheric Chemistry and Physics, 2018, 18, 7217-7235.	1.9	32
43	Mitigation of Global Cooling by Stratospheric Chemistry Feedbacks in a Simulation of the Last Glacial Maximum. Journal of Geophysical Research D: Atmospheres, 2018, 123, 9378-9390.	1.2	10
44	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
45	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
46	Seasonality of the lower tropospheric ozone over China observed by the Ozone Monitoring Instrument. Atmospheric Environment, 2018, 184, 244-253.	1.9	20
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	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
49	Estimates of ozone return dates from Chemistry-Climate Model Initiative simulations. Atmospheric Chemistry and Physics, 2018, 18, 8409-8438.	1.9	128
50	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
51	Revisiting the Mystery of Recent Stratospheric Temperature Trends. Geophysical Research Letters, 2018, 45, 9919-9933.	1.5	51
52	Study of Lower Tropospheric Ozone over Central and Eastern China: Comparison of Satellite Observation with Model Simulation. Springer Remote Sensing/photogrammetry, 2018, , 255-275.	0.4	1
53	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	10
54	Impact of interactive chemistry of stratospheric ozone on Southern Hemisphere paleoclimate simulation. Journal of Geophysical Research D: Atmospheres, 2017, 122, 878-895.	1.2	10

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55	Future Changes in the Ozone Quasi-Biennial Oscillation with Increasing GHGs and Ozone Recovery in CCMI Simulations. Journal of Climate, 2017, 30, 6977-6997.	1.2	9
56	Impact of tropical convection and ENSO variability in vertical distributions of CO and O3 over an urban site of India. Climate Dynamics, 2017, 49, 449-469.	1.7	10
57	Lidar detection of high concentrations of ozone and aerosol transported from northeastern Asia over Saga, Japan. Atmospheric Chemistry and Physics, 2017, 17, 1865-1879.	1.9	7
58	Contribution of different processes to changes in tropical lower-stratospheric water vapor in chemistryâ€“climate models. Atmospheric Chemistry and Physics, 2017, 17, 8031-8044.	1.9	23
59	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
60	Influence of the solar cycle on the Polarâ€night Jet Oscillation in the Southern Hemisphere. Journal of Geophysical Research D: Atmospheres, 2016, 121, 11,575.	1.2	2
61	Transport of tropospheric and stratospheric ozone over India: Balloon-borne observations and modeling analysis. Atmospheric Environment, 2016, 131, 228-242.	1.9	12
62	Ozone-induced stomatal sluggishness changes carbon and water balance of temperate deciduous forests. Scientific Reports, 2015, 5, 9871.	1.6	89
63	DIAL measurement of lower tropospheric ozone over Saga (33.24Â° N, 130.29Â° E), Japan, and comparison with a chemistryâ€“climate model. Atmospheric Measurement Techniques, 2014, 7, 1385-1394.	1.2	16
64	Seasonal and interannual variability of carbon monoxide based on MOZAIC observations, MACC reanalysis, and model simulations over an urban site in India. Journal of Geophysical Research D: Atmospheres, 2014, 119, 9123-9141.	1.2	25
65	Seasonal and interannual variability of tropospheric ozone over an urban site in India: A study based on MOZAIC and CCM vertical profiles over Hyderabad. Journal of Geophysical Research D: Atmospheres, 2014, 119, 3615-3641.	1.2	29
66	Diurnal and daily variations in surface ultraviolet radiation due to ozone variations in the troposphere at Tsukuba, Japan: Lidar observations and chemistry-climate model simulation. , 2013, , .		0
67	A multimodel comparison of stratospheric ozone data assimilation based on an ensemble Kalman filter approach. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3848-3868.	1.2	4
68	Basic performance of a new earth system model of the Meteorological Research Institute (MRI-ESM1). Papers in Meteorology and Geophysics, 2013, 64, 1-19.	0.9	66
69	Modeling wet deposition and concentration of inorganics over Northeast Asia with MRI-PM/c. Geoscientific Model Development, 2012, 5, 1363-1375.	1.3	18
70	Development of the RAQM2 aerosol chemical transport model and predictions of the Northeast Asian aerosol mass, size, chemistry, and mixing type. Atmospheric Chemistry and Physics, 2012, 12, 11833-11856.	1.9	55
71	A New Global Climate Model of the Meteorological Research Institute: MRI-CGCM3 â€"Model Description and Basic Performanceâ€". Journal of the Meteorological Society of Japan, 2012, 90A, 23-64.	0.7	649
72	Impacts of increases in greenhouse gases and ozone recovery on lower stratospheric circulation and the age of air: Chemistry-climate model simulations up to 2100. Journal of Geophysical Research, 2011, 116, .	3.3	11

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73	Operation-Oriented Ensemble Data Assimilation of Total Column Ozone. Scientific Online Letters on the Atmosphere, 2011, 7, 41-44.	0.6	10
74	Development of a Meteorological Research Institute Chemistry-Climate Model version 2 for the Study of Tropospheric and Stratospheric Chemistry. Papers in Meteorology and Geophysics, 2011, 62, 1-46.	0.9	69
75	Anthropogenic forcing of the Northern Annular Mode in CCMValâ€•2 models. Journal of Geophysical Research, 2010, 115, .	3.3	32
76	Clear sky UV simulations for the 21st century based on ozone and temperature projections from Chemistry-Climate Models. Atmospheric Chemistry and Physics, 2009, 9, 1165-1172.	1.9	40
77	Northern winter stratospheric temperature and ozone responses to ENSO inferred from an ensemble of Chemistry Climate Models. Atmospheric Chemistry and Physics, 2009, 9, 8935-8948.	1.9	56
78	Coupled chemistry climate model simulations of the solar cycle in ozone and temperature. Journal of Geophysical Research, 2008, 113, .	3.3	134
79	Long-term variations and trends in the simulation of the middle atmosphere 1980â€“2004 by the chemistry-climate model of the Meteorological Research Institute. Annales Geophysicae, 2008, 26, 1299-1326.	0.6	56
80	Multimodel projections of stratospheric ozone in the 21st century. Journal of Geophysical Research, 2007, 112, .	3.3	308
81	Role of solar activity in the troposphereâ€•stratosphere coupling in the Southern Hemisphere winter. Geophysical Research Letters, 2007, 34, .	1.5	22
82	Stratospheric ozone variation induced by the 11-year solar cycle: Recent 22-year simulation using 3-D chemical transport model with reanalysis data. Geophysical Research Letters, 2006, 33, .	1.5	10
83	Assessment of temperature, trace species, and ozone in chemistry-climate model simulations of the recent past. Journal of Geophysical Research, 2006, 111, .	3.3	414
84	Partitioning between resolved wave forcing and unresolved gravity wave forcing to the quasi-biennial oscillation as revealed with a coupled chemistry-climate model. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	48
85	Radiative effect of ozone on the quasi-biennial oscillation in the equatorial stratosphere. Geophysical Research Letters, 2005, 32, .	1.5	14
86	Roles of transport in the seasonal variation of the total ozone amount. Journal of Geophysical Research, 2005, 110, .	3.3	19
87	The Impact of Changing Meteorological Variables to Be Assimilated into GCM on Ozone Simulation with MRI CTM. Journal of the Meteorological Society of Japan, 2005, 83, 909-918.	0.7	17
88	Development of an MRI Chemical Transport Model for the Study of Stratospheric Chemistry. Papers in Meteorology and Geophysics, 2005, 55, 75-119.	0.9	65
89	A New Empirical Formula for the Aerodynamic Roughness of Water Surface Waves. Journal of Oceanography, 2003, 59, 819-831.	0.7	5
90	Future Changes in the Quasi-Biennial Oscillation Under a Greenhouse Gas Increase and Ozone Recovery in Transient Simulations by a Chemistry-Climate Model. , 0, , .		5

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91	Significant climate benefits from near-term climate forcer mitigation in spite of aerosol reductions. Environmental Research Letters, 0, , .	2.2	14