Daniel R Marsh

List of Publications by Year
in descending order

68 papers	3,587 citations	186265 28 h-index	138484 58 g-index
73 all docs	73 docs citations	73 times ranked	3844 citing authors

#	Article	IF	Citations
1	Climate Change from 1850 to 2005 Simulated in CESM1(WACCM). Journal of Climate, 2013, 26, 7372-7391.	3.2	706
2	Solar forcing for CMIP6 (v3.2). Geoscientific Model Development, 2017, 10, 2247-2302.	3.6	293
3	Development and Validation of the Whole Atmosphere Community Climate Model With Thermosphere and Ionosphere Extension (WACCMâ€X 2.0). Journal of Advances in Modeling Earth Systems, 2018, 10, 381-402.	3.8	213
4	Global volcanic aerosol properties derived from emissions, 1990â€“2014, using CESM1(WACCM). Journal of Geophysical Research D: Atmospheres, 2016, 121, 2332-2348.	3.3	175
5	Temporal variations of atomic oxygen in the upper mesosphere from SABER. Journal of Geophysical Research, 2010, 115, .	3.3	135
6	WACCM simulations of the mean circulation and trace species transport in the winter mesosphere. Journal of Geophysical Research, 2011, 116, .	3.3	123
7	A global atmospheric model of meteoric iron. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9456-9474.	3.3	105
8	Role of the QBO in modulating the influence of the 11 year solar cycle on the atmosphere using constant forcings. Journal of Geophysical Research, 2010, 115, .	3.3	93
9	On the distribution of CO₂ and CO in the mesosphere and lower thermosphere. Journal of Geophysical Research D: Atmospheres, 2014, 119, 5700-5718.	3.3	90
10	Electron impact ionization: A new parameterization for 100 eV to 1 MeV electrons. Journal of Geophysical Research, 2008, 113, .	3.3	84
11	A global model of meteoric sodium. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,442.	3.3	84
12	Quantification of the SF₆ lifetime based on mesospheric loss measured in the stratospheric polar vortex. Journal of Geophysical Research D: Atmospheres, 2017, 122, 4626-4638.	3.3	71
13	The impact of solar spectral irradiance variability on middle atmospheric ozone. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	70
14	Attribution of decadal variability in lowerâ€stratospheric tropical ozone. Geophysical Research Letters, 2007, 34, .	4.0	61
15	Whole Atmosphere Simulation of Anthropogenic Climate Change. Geophysical Research Letters, 2018, 45, 1567-1576.	4.0	60
16	Chemicalâ€“Dynamical Coupling in the Mesosphere and Lower Thermosphere. , 2011, , 3-17.		58
17	On the Dynamical Control of the Mesosphereâ€“Lower Thermosphere by the Lower and Middle Atmosphere. Journals of the Atmospheric Sciences, 2017, 74, 933-947.	1.7	58
18	HEPPA-II modelâ€“measurement intercomparison project: EPP indirect effects during the dynamically perturbed NH winter 2008â€“2009. Atmospheric Chemistry and Physics, 2017, 17, 3573-3604.	4.9	55

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19	First Results From the Ionospheric Extension of WACCMâ€X During the Deep Solar Minimum Year of 2008. Journal of Geophysical Research: Space Physics, 2018, 123, 1534-1553.	2.4	50
20	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.	4.9	49
21	Satellite observations of high nighttime ozone at the equatorial mesopause. Journal of Geophysical Research, 2008, 113, .	3.3	46
22	Mitigation of 21st century Antarctic sea ice loss by stratospheric ozone recovery. Geophysical Research Letters, 2012, 39, .	4.0	44
23	The influence of major sudden stratospheric warming and elevated stratopause events on the effects of energetic particle precipitation in WACCM. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,636.	3.3	42
24	Atomic hydrogen in the mesopause region derived from SABER: Algorithm theoretical basis, measurement uncertainty, and results. Journal of Geophysical Research D: Atmospheres, 2014, 119, 3516-3526.	3.3	41
25	Could a future â€œGrand Solar Minimumâ€•like the Maunder Minimum stop global warming?. Geophysical Research Letters, 2013, 40, 1789-1793.	4.0	39
26	Whole Atmosphere Climate Change: Dependence on Solar Activity. Journal of Geophysical Research: Space Physics, 2019, 124, 3799-3809.	2.4	35
27	Stratospheric ozone chemistry feedbacks are not critical for the determination of climate sensitivity in CESM1(WACCM). Geophysical Research Letters, 2016, 43, 3928-3934.	4.0	33
28	Nitric Oxide Response to the April 2010 Electron Precipitation Event: Using WACCM and WACCMâ€D With and Without Mediumâ€Energy Electrons. Journal of Geophysical Research: Space Physics, 2018, 123, 5232-5245.	2.4	31
29	The importance of timeâ€varying forcing for QBO modulation of the atmospheric 11â€‰year solar cycle signal. Journal of Geophysical Research D: Atmospheres, 2013, 118, 4435-4447.	3.3	30
30	A tidal explanation for the sunrise/sunset anomaly in HALOE low-latitude nitric oxide observations. Geophysical Research Letters, 2000, 27, 3197-3200.	4.0	29
31	The combined effects of ENSO and the 11 year solar cycle on the Northern Hemisphere polar stratosphere. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	29
32	Agreement in late twentieth century Southern Hemisphere stratospheric temperature trends in observations and CCMValâ€2, CMIP3, and CMIP5 models. Journal of Geophysical Research D: Atmospheres, 2013, 118, 605-613.	3.3	27
33	NO_{<i>x</i>} production due to energetic particle precipitation in the MLT region: Results from ion chemistry model studies. Journal of Geophysical Research: Space Physics, 2014, 119, 2137-2148.	2.4	26
34	Atmospheric changes caused by galactic cosmic rays over the period 1960â€“2010. Atmospheric Chemistry and Physics, 2016, 16, 5853-5866.	4.9	26
35	Seasonal variations of the mesospheric Fe layer at Rothera, Antarctica (67.5Â°S, 68.0Â°W). Journal of Geophysical Research, 2011, 116, .	3.3	25
36	Interhemispheric transport of metallic ions within ionospheric sporadic <i>E</i> layers by the lower thermospheric meridional circulation. Atmospheric Chemistry and Physics, 2021, 21, 4219-4230.	4.9	24

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37	Global climate disruption and regional climate shelters after the Toba supereruption. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	21
38	The Multi-Scale Infrastructure for Chemistry and Aerosols (MUSICA). Bulletin of the American Meteorological Society, 2020, 101, E1743-E1760.	3.3	21
39	On the secular trend of CO x and CO 2 in the lower thermosphere. Journal of Geophysical Research D: Atmospheres, 2016, 121, 3634-3644.	3.3	20
40	Decreases in atomic hydrogen over the summer pole: Evidence for dehydration from polar mesospheric clouds?. Geophysical Research Letters, 2008, 35, .	4.0	19
41	Temporal Variability of Atomic Hydrogen From the Mesopause to the Upper Thermosphere. Journal of Geophysical Research: Space Physics, 2018, 123, 1006-1017.	2.4	19
42	Simulation of the 21 August 2017 Solar Eclipse Using the Whole Atmosphere Community Climate Modelâ€eXtended. Geophysical Research Letters, 2018, 45, 3793-3800.	4.0	18
43	The representation of solar cycle signals in stratospheric ozone â€“ PartÂ2: Analysis of global models. Atmospheric Chemistry and Physics, 2018, 18, 11323-11343.	4.9	18
44	Production and transport mechanisms of NO in the polar upper mesosphere and lower thermosphere in observations and models. Atmospheric Chemistry and Physics, 2018, 18, 9075-9089.	4.9	17
45	Solar cycle dependence of middle atmosphere temperatures. Journal of Geophysical Research D: Atmospheres, 2014, 119, 9615-9625.	3.3	16
46	<i>D</i>-region ionâ€"neutral coupled chemistry (SodankylÃ Ion Chemistry,) Tj ETQq0 0 0 rgBT /Overlock WACCM-rSIC. Geoscientific Model Development, 2016, 9, 3123-3136.	3.6	16
47	Impacts of a sudden stratospheric warming on the mesospheric metal layers. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 162, 162-171.	1.6	16
48	Future Directions for Whole Atmosphere Modeling: Developments in the Context of Space Weather. Space Weather, 2019, 17, 1342-1350.	3.7	16
49	Atmospheric Tides in the Latest Generation of Climate Models*. Journals of the Atmospheric Sciences, 2014, 71, 1905-1913.	1.7	14
50	Mesospheric temperatures and sodium properties measured with the ALOMAR Na lidar compared with WACCM. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 127, 111-119.	1.6	13
51	IMK/IAA MIPAS temperature retrieval version 8: nominal measurements. Atmospheric Measurement Techniques, 2021, 14, 4111-4138.	3.1	13
52	Role Of the Sun and the Middle atmosphere/thermosphere/ionosphere In Climate (ROSMIC): a retrospective and prospective view. Progress in Earth and Planetary Science, 2021, 8, .	3.0	13
53	Tidal influences on O2atmospheric band dayglow: HRDI observations vs. model simulations. Geophysical Research Letters, 1999, 26, 1369-1372.	4.0	12
54	Comparison of global datasets of sodium densities in the mesosphere and lower thermosphere from GOMOS, SCIAMACHY and OSIRIS measurements and WACCM model simulations from 2008 to 2012. Atmospheric Measurement Techniques, 2017, 10, 2989-3006.	3.1	12

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55	Mesospheric Nitric Acid Enhancements During Energetic Electron Precipitation Events Simulated by WACCMâ€Đ. Journal of Geophysical Research D: Atmospheres, 2018, 123, 6984-6998.	3.3	12
56	Climatology of mesopause region nocturnal temperature, zonal wind and sodium density observed by sodium lidar over Hefei, China (32Â°â€‰N, 117Â°â€‰E). Atmospheric Chemistry and Physics, 2018, 18, 11683-11695.	4.9	12
57	Relative Importance of Nitric Oxide Physical Drivers in the Lower Thermosphere. Geophysical Research Letters, 2017, 44, 10,081.	4.0	11
58	On the relative roles of dynamics and chemistry governing the abundance and diurnal variation of low-latitude thermospheric nitric oxide. Annales Geophysicae, 2019, 37, 37-48.	1.6	11
59	Longâ€Term Variability and Tendencies in Middle Atmosphere Temperature and Zonal Wind From WACCM6 Simulations During 1850â€“2014. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD033579.	3.3	10
60	Effects of enhanced downwelling of NO_x on Antarctic upper-stratospheric ozone in the 21stÂcentury. Atmospheric Chemistry and Physics, 2021, 21, 11041-11052.	4.9	9
61	Photochemistry on the bottom side of the mesospheric Na layer. Atmospheric Chemistry and Physics, 2019, 19, 3769-3777.	4.9	8
62	WACCM simulations: Decadal winter-to-spring climate impact on middle atmosphere and troposphere from medium energy electron precipitation. Journal of Atmospheric and Solar-Terrestrial Physics, 2020, 209, 105382.	1.6	6
63	Statistical response of middle atmosphere composition to solar proton events in WACCM-D simulations: the importance of lower ionospheric chemistry. Atmospheric Chemistry and Physics, 2020, 20, 8923-8938.	4.9	6
64	Longâ€Term Variability and Tendencies in Migrating Diurnal Tide From WACCM6 Simulations During 1850â€“2014. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD033644.	3.3	5
65	Tropical Stratospheric Circulation and Ozone Coupled to Pacific Multiâ€Decadal Variability. Geophysical Research Letters, 2021, 48, e2020GL092162.	4.0	5
66	Magnetic-local-time dependency of radiation belt electron precipitation: impact on ozone in the polar middle atmosphere. Annales Geophysicae, 2020, 38, 833-844.	1.6	5
67	Impacts of Lower Thermospheric Atomic Oxygen on Thermospheric Dynamics and Composition Using the Global Ionosphere Thermosphere Model. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA027877.	2.4	3
68	Middle atmospheric ozone, nitrogen dioxide and nitrogen trioxide inÂ2002â€“2011: SD-WACCM simulations compared to GOMOS observations. Atmospheric Chemistry and Physics, 2018, 18, 5001-5019.	4.9	2