Andrew Dessler

List of Publications by Citations

Source: https://exaly.com/author-pdf/9067116/andrew-dessler-publications-by-citations.pdf
Version: 2024-04-24

112 papers	5,105 citations	40 h-index	68 g-index
135 ext. papers	5,586 ext. citations	6.3 avg, IF	5.94 L-index

#	Paper	IF	Citations
112	Tropical tropopause layer. *Reviews of Geophysics*, **2009**, 47,	23.1	701
111	On the control of stratospheric humidity. *Geophysical Research Letters*, **2000**, 27, 2513-2516	4.9	177
110	Stratospheric water vapor feedback. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 18087-91	11.5	167
109	A Model for Transport across the Tropical Tropopause. *Journals of the Atmospheric Sciences*, **2001**, 58, 765-779	2.1	164
108	A determination of the cloud feedback from climate variations over the past decade. *Science*, **2010**, 330, 1523-7	33.3	156
107	Water-vapor climate feedback inferred from climate fluctuations, 2003–2008. *Geophysical Research Letters*, **2008**, 35,	4.9	151
106	Atmospheric science. A matter of humidity. *Science*, **2009**, 323, 1020-1	33.3	124
105	New fast response photofragment fluorescence hygrometer for use on the NASA ER-2 and the Perseus remotely piloted aircraft. *Review of Scientific Instruments*, **1994**, 65, 3544-3554	1.7	111
104	Observations of deep convection in the tropics using the Tropical Rainfall Measuring Mission (TRMM) precipitation radar. *Journal of Geophysical Research*, **2002**, 107, AAC 17-1		105
103	Observations of deep convective influence on stratospheric water vapor and its isotopic composition. *Geophysical Research Letters*, **2007**, 34,	4.9	98
102	The Distribution of Tropical Thin Cirrus Clouds Inferred fromTerraMODIS Data. *Journal of Climate*, **2003**, 16, 1241-1247	4.4	96
101	Effect of convection on the summertime extratropical lower stratosphere. *Journal of Geophysical Research*, **2004**, 109,		93
100	The effect of deep, tropical convection on the tropical tropopause layer. *Journal of Geophysical Research*, **2002**, 107, ACH 6-1		89
99	Mechanisms controlling water vapor in the lower stratosphere: "A tale of two stratospheres" *Journal of Geophysical Research*, **1995**, 100, 23167		89
98	A reexamination of the "stratospheric fountain" hypothesis. *Geophysical Research Letters*, **1998**, 25, 4165-4168	4.9	88
97	Dehydration of the stratosphere. *Atmospheric Chemistry and Physics*, **2011**, 11, 8433-8446	6.8	87
96	Water Vapor Feedback in the Tropical Upper Troposphere: Model Results and Observations. *Journal of Climate*, **2004**, 17, 1272-1282	4.4	83

95	Observations of Climate Feedbacks over 2000�10 and Comparisons to Climate Models*. *Journal of Climate*, **2013**, 26, 333-342	4.4	80
94	Trends in tropospheric humidity from reanalysis systems. *Journal of Geophysical Research*, **2010**, 115,		75
93	An examination of the total hydrogen budget of the lower stratosphere. *Geophysical Research Letters*, **1994**, 21, 2563-2566	4.9	71
92	Bulk properties of isentropic mixing into the tropics in the lower stratosphere. *Journal of Geophysical Research*, **1996**, 101, 9433-9439		69
91	The diurnal variation of hydrogen, nitrogen, and chlorine radicals: Implications for the heterogeneous production of HNO2. *Geophysical Research Letters*, **1994**, 21, 2551-2554	4.9	69
90	In situ observations in aircraft exhaust plumes in the lower stratosphere at midlatitudes. *Journal of Geophysical Research*, **1995**, 100, 3065		66
89	Suppression of deep convection over the tropical North Atlantic by the Saharan Air Layer. *Geophysical Research Letters*, **2005**, 32,	4.9	63
88	Tropical cloud-top height distributions revealed by the Ice, Cloud, and Land Elevation Satellite (ICESat)/Geoscience Laser Altimeter System (GLAS). *Journal of Geophysical Research*, **2006**, 111,		62
87	The distribution of hydrogen, nitrogen, and chlorine radicals in the lower stratosphere: Implications for changes in O3 due to emission of NOy from supersonic aircraft. *Geophysical Research Letters*, **1994**, 21, 2547-2550	4.9	62
86	Variations of stratospheric water vapor over the past three decades. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 12,588-12,598	4.4	61
85	Simulation of stratospheric water vapor and trends using three reanalyses. *Atmospheric Chemistry and Physics*, **2012**, 12, 6475-6487	6.8	61
84	Simulations of tropical upper tropospheric humidity. *Journal of Geophysical Research*, **2000**, 105, 20155-20163		55
83	The relationship between interannual and long-term cloud feedbacks. *Geophysical Research Letters*, **2015**, 42, 10,463	4.9	54
82	Convective Mixing near the Tropical Tropopause: Insights from Seasonal Variations. *Journals of the Atmospheric Sciences*, **2003**, 60, 2674-2685	2.1	53
81	Effects of convective ice lofting on H2O and HDO in the tropical tropopause layer. *Journal of Geophysical Research*, **2007**, 112,		51
80	Large anomalies in lower stratospheric water vapour and ice during the 2015�2016 El Ni�. *Nature Geoscience*, **2017**, 10, 405-409	18.3	50
79	Distribution and Radiative Forcing of Tropical Thin Cirrus Clouds. *Journals of the Atmospheric Sciences*, **2009**, 66, 3721-3731	2.1	49
78	A model of HDO in the tropical tropopause layer. *Atmospheric Chemistry and Physics*, **2003**, 3, 2173-2181	6.8	47

77	Maintenance of Lower Tropospheric Temperature Inversion in the Saharan Air Layer by Dust and Dry Anomaly. *Journal of Climate*, **2009**, 22, 5149-5162	4.4	44
76	Tropopause-level thin cirrus coverage revealed by ICESat/Geoscience Laser Altimeter System. *Journal of Geophysical Research*, **2006**, 111,		44
75	Correlated observations of HCl and ClONO2 from UARS and implications for stratospheric chlorine partitioning. *Geophysical Research Letters*, **1995**, 22, 1721-1724	4.9	44
74	An Analysis of the Short-Term Cloud Feedback Using MODIS Data. *Journal of Climate*, **2013**, 26, 4803-4815	4.4	41
73	Measurements of stratospheric carbon dioxide and water vapor at northern midlatitudes: Implications for troposphere-to-stratosphere transport. *Geophysical Research Letters*, **1995**, 22, 2737-2740	4.9	41
72	SPADE H2O measurements and the seasonal cycle of stratospheric water vapor. *Geophysical Research Letters*, **1994**, 21, 2559-2562	4.9	40
71	Study of Horizontally Oriented Ice Crystals with CALIPSO Observations and Comparison with Monte Carlo Radiative Transfer Simulations. *Journal of Applied Meteorology and Climatology*, **2012**, 51, 1426-1439	2.7	39
70	UARS/MLS Cloud Ice Measurements: Implications for H2O Transport near the Tropopause. *Journals of the Atmospheric Sciences*, **2005**, 62, 518-530	2.1	38
69	Transport of ice into the stratosphere and the humidification of the stratosphere over the 21 century. *Geophysical Research Letters*, **2016**, 43, 2323-2329	4.9	37
68	Cirrus feedback on interannual climate fluctuations. *Geophysical Research Letters*, **2014**, 41, 9166-9173	4.9	34
67	An analysis of the regulation of tropical tropospheric water vapor. *Journal of Geophysical Research*, **2007**, 112,		34
66	Selected science highlights from the first 5 years of the Upper Atmosphere Research Satellite (UARS) Program. *Reviews of Geophysics*, **1998**, 36, 183-210	23.1	34
65	Balloon-borne in situ measurements of CLO and ozone: Implications for heterogeneous chemistry and mid-latitude ozone loss. *Geophysical Research Letters*, **1993**, 20, 1795-1798	4.9	34
64	The impact of forcing efficacy on the equilibrium climate sensitivity. *Geophysical Research Letters*, **2014**, 41, 3565-3568	4.9	30
63	Analysis of cirrus in the tropical tropopause layer from CALIPSO and MLS data: A water perspective. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		30
62	Estimates of the Water Vapor Climate Feedback during El Ni��Southern Oscillation. *Journal of Climate*, **2009**, 22, 6404-6412	4.4	30
61	Contrails and Induced Cirrus. *Bulletin of the American Meteorological Society*, **2010**, 91, 473-478	6.1	30
60	The influence of internal variability on Earth's energy balance framework and implications for estimating climate sensitivity. *Atmospheric Chemistry and Physics*, **2018**, 18, 5147-5155	6.8	28

59	Clouds and water vapor in the Northern Hemisphere summertime stratosphere. *Journal of Geophysical Research*, **2009**, 114,		28
58	Water Vapor, Clouds, and Saturation in the Tropical Tropopause Layer. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 3984-4003	4.4	27
57	An Estimate of Equilibrium Climate Sensitivity From Interannual Variability. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 8634-8645	4.4	27
56	Cloud formation, convection, and stratospheric dehydration. *Earth and Space Science*, **2014**, 1, 1-17	3.1	27
55	UARS measurements of ClO and NO2 at 40 and 46 km and implications for the model ozone deficit *Geophysical Research Letters*, **1996**, 23, 339-342	4.9	27
54	Long-term variability in Saharan dust transport and its link to North Atlantic sea surface temperature. *Geophysical Research Letters*, **2008**, 35, n/a-n/a	4.9	26
53	Instantaneous cloud overlap statistics in the tropical area revealed by ICESat/GLAS data. *Geophysical Research Letters*, **2006**, 33,	4.9	26
52	Measurements of water vapor in the tropical lower stratosphere during the CEPEX Campaign: Results and interpretation. *Geophysical Research Letters*, **1995**, 22, 3231-3234	4.9	24
51	Simultaneous, in situ measurements of OH, HO2, O3, and H2O: A test of modeled stratospheric HOx chemistry. *Geophysical Research Letters*, **1990**, 17, 1909-1912	4.9	24
50	Convective Hydration of the Upper Troposphere and Lower Stratosphere. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 4583-4593	4.4	24
49	Modeling upper tropospheric and lower stratospheric water vapor anomalies. *Atmospheric Chemistry and Physics*, **2013**, 13, 7783-7793	6.8	23
48	Determination of the amount of water vapor entering the stratosphere based on Halogen Occultation Experiment (HALOE) data. *Journal of Geophysical Research*, **1999**, 104, 30605-30607		22
47	Test of the Fixed Anvil Temperature Hypothesis. *Journals of the Atmospheric Sciences*, **2012**, 69, 2317-2328	2.1	21
46	Regulation of H2O and CO in tropical tropopause layer by the Madden-Julian oscillation. *Journal of Geophysical Research*, **2007**, 112,		21
45	Trajectory model simulations of ozone (O₃) and carbon monoxide (CO) in the lower stratosphere. *Atmospheric Chemistry and Physics*, **2014**, 14, 7135-7147	6.8	19
44	Cloud variations and the Earth's energy budget. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	19
43	Nitrogen partitioning in the middle stratosphere as observed by the Upper Atmosphere Research Satellite. *Journal of Geophysical Research*, **1997**, 102, 8955-8965		19
42	Satellite observations of temporary and irreversible denitrification. *Journal of Geophysical Research*, **1999**, 104, 13993-14002		18

41	A test of the partitioning between ClO and ClONO2 using simultaneous UARS measurements of ClO, NO2, and ClONO2. *Journal of Geophysical Research*, **1996**, 101, 12515-12521		18
40	Balloon-borne measurements of CLO, NO, and O3 in a volcanic cloud: An analysis of heterogeneous chemistry between 20 and 30 km. *Geophysical Research Letters*, **1993**, 20, 2527-2530	4.9	18
39	Multimodel Analysis of the Water Vapor Feedback in the Tropical Upper Troposphere. *Journal of Climate*, **2006**, 19, 5455-5464	4.4	17
38	Development of the Antarctic ozone hole. *Journal of Geophysical Research*, **1996**, 101, 20909-20924		17
37	Contribution of different processes to changes in tropical lower-stratospheric water vapor in chemistry□limate models. *Atmospheric Chemistry and Physics*, **2017**, 17, 8031-8044	6.8	16
36	Impact of dataset choice on calculations of the short-term cloud feedback. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 2821-2826	4.4	16
35	The effects of tropical cirrus clouds on the abundance of lower stratospheric ozone. *Journal of Atmospheric Chemistry*, **1996**, 23, 209-220	3.2	16
34	The impact of temperature vertical structure on trajectory modeling of stratospheric water vapor. *Atmospheric Chemistry and Physics*, **2015**, 15, 3517-3526	6.8	15
33	An analysis of the dependence of clear-sky top-of-atmosphere outgoing longwave radiation on atmospheric temperature and water vapor. *Journal of Geophysical Research*, **2008**, 113,		15
32	The impact of gravity waves and cloud nucleation threshold on stratospheric water and tropical tropospheric cloud fraction. *Earth and Space Science*, **2016**, 3, 295-305	3.1	15
31	Comparisons between measurements and models of Antarctic ozone loss. *Journal of Geophysical Research*, **2001**, 106, 3195-3201		14
30	Estimation of the cirrus cloud scattering phase function from satellite observations. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2014**, 138, 36-49	2.1	13
29	Lower stratospheric chlorine partitioning during the decay of the Mt. Pinatubo aerosol cloud. *Geophysical Research Letters*, **1997**, 24, 1623-1626	4.9	13
28	Frequency of tropical precipitating clouds as observed by the Tropical Rainfall Measuring Mission Precipitation Radar and ICESat/Geoscience Laser Altimeter System. *Journal of Geophysical Research*, **2007**, 112,		13
27	Five-Year Climatology of Midtroposphere Dry Air Layers in Warm Tropical Ocean Regions as Viewed by AIRS/Aqua. *Journal of Applied Meteorology and Climatology*, **2009**, 48, 1831-1842	2.7	12
26	Statistical Properties of Horizontally Oriented Plates in Optically Thick Clouds From Satellite Observations. *IEEE Geoscience and Remote Sensing Letters*, **2013**, 10, 986-990	4.1	11
25	Principal component analysis of the evolution of the Saharan air layer and dust transport: Comparisons between a model simulation and MODIS and AIRS retrievals. *Journal of Geophysical Research*, **2006**, 111,		11
24	Potential Problems Measuring Climate Sensitivity from the Historical Record. *Journal of Climate*, **2020**, 33, 2237-2248	4.4	10

23	. *IEEE Geoscience and Remote Sensing Letters*, **2006**, 3, 287-291	4.1	9
22	Analysis of the correlations between atmospheric boundary-layer and free-tropospheric temperatures in the tropics. *Geophysical Research Letters*, **2006**, 33,	4.9	9
21	Impact of convectively lofted ice on the seasonal cycle of water vapor in the tropical tropopause layer. *Atmospheric Chemistry and Physics*, **2019**, 19, 14621-14636	6.8	8
20	Greater committed warming after accounting for the pattern effect. *Nature Climate Change*, **2021**, 11, 132-136	21.4	8
19	Effects of convective ice evaporation on interannual variability of tropical tropopause layer water vapor. *Atmospheric Chemistry and Physics*, **2018**, 18, 4425-4437	6.8	7
18	Interhemispheric asymmetry in the 1 mbar O3 trend: An analysis using an interactive zonal mean model and UARS data. *Journal of Geophysical Research*, **1998**, 103, 1607-1618		7
17	Estimating Transient Climate Response in a Large-Ensemble Global Climate Model Simulation. *Geophysical Research Letters*, **2019**, 46, 311-317	4.9	7
16	. *IEEE Geoscience and Remote Sensing Letters*, **2015**, 12, 597-600	4.1	5
15	Erythemal Radiation, Column Ozone, and the North American Monsoon. *Journal of Geophysical Research D: Atmospheres*, **2020**, 125, e2019JD032283	4.4	5
14	Influence of convection on stratospheric water vapor in the North American monsoon region. *Atmospheric Chemistry and Physics*, **2020**, 20, 12153-12161	6.8	5
13	A Radiative–Convective Equilibrium Perspective of Weakening of the Tropical Walker Circulation in Response to Global Warming. *Journal of Climate*, **2013**, 26, 1643-1653	4.4	4
12	Energy for air capture. *Nature Geoscience*, **2009**, 2, 811-811	18.3	4
11	Reply [to “Comment on ‘A reexamination of the ‘Stratospheric Fountain’ Hypothesis’ by A. E. Dessler”]. *Geophysical Research Letters*, **1999**, 26, 2739-2739	4.9	4
10	A new approach to retrieving cirrus cloud height with a combination of MODIS 1.24- and 1.38-μm channels. *Geophysical Research Letters*, **2012**, 39,	4.9	2
9	Comment on “Balloon-borne observations of water vapor and ozone in the tropical upper troposphere and lower stratosphere” by H. Vömel et al.. *Journal of Geophysical Research*, **2003**, 108,		2
8	The response of stratospheric water vapor to climate change driven by different forcing agents. *Atmospheric Chemistry and Physics*, **2020**, 20, 13267-13282	6.8	2
7	Effects of tropical deep convection on interannual variability of tropical tropopause layer water vapor **2017**,		1
6	Simulation of stratospheric water vapor and trends using three reanalyses		1

5	The impact of temperature resolution on trajectory modeling of stratospheric water vapour		1
4	The effect of forced change and unforced variability in heat waves, temperature extremes, and associated population risk in a CO₂-warmed world. *Atmospheric Chemistry and Physics*, **2021**, 21, 11889-11904	6.8	1
3	An Assessment of Climate Feedbacks in Observations and Climate Models Using Different Energy Balance Frameworks. *Journal of Climate*, **2021**, 1-30	4.4	1
2	Cloud and Aerosol Distributions From SAGE III/ISS Observations. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2021JD035550	4.4	0
1	Impacts of the Unforced Pattern Effect on the Cloud Feedback in CERES Observations and Climate Models. *Geophysical Research Letters*, **2022**, 49,	4.9	