

Geoffrey Dutton

List of Publications by Year in descending order

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68
papers

4,550
citations

94269

37
h-index

110170

64
g-index

78
all docs

78
docs citations

78
times ranked

4839
citing authors

#	ARTICLE	IF	CITATIONS
1	Continental-scale contributions to the global CFC-11 emission increase between 2012 and 2017. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 2891-2907.	1.9	2
2	3D Atmospheric Modeling of the Global Budget of N ₂ O and Its Isotopologues for 1980–2019: The Impact of Anthropogenic Emissions. <i>Global Biogeochemical Cycles</i> , 2022, 36, .	1.9	1
3	UAS Chromatograph for Atmospheric Trace Species (UCATS) – a versatile instrument for trace gas measurements on airborne platforms. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 6795-6819.	1.2	9
4	Increase in CFC-11 emissions from eastern China based on atmospheric observations. <i>Nature</i> , 2019, 569, 546-550.	13.7	148
5	Top-down constraints on global N ₂ O emissions at optimal resolution: application of a new dimension reduction technique. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 735-756.	1.9	22
6	An unexpected and persistent increase in global emissions of ozone-depleting CFC-11. <i>Nature</i> , 2018, 557, 413-417.	13.7	269
7	Ground-based FTIR retrievals of SF ₆ on Reunion Island. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 651-662.	1.2	11
8	Drivers and Environmental Responses to the Changing Annual Snow Cycle of Northern Alaska. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 2559-2577.	1.7	35
9	State of the Climate in 2016. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, Si-S280.	1.7	132
10	CFC-11, CFC-12 and HCFC-22 ground-based remote sensing FTIR measurements at Reunion Island and comparisons with MIPAS/ENVISAT data. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 5621-5636.	1.2	29
11	MIPAS IMK/IAA CFC-11 (CCl ₃ F) and CFC-12 (CCl ₂ F ₂) measurements: accuracy, precision and long-term stability. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 3355-3389.	1.2	15
12	State of the Climate in 2015. <i>Bulletin of the American Meteorological Society</i> , 2016, 97, Si-S275.	1.7	142
13	Atmospheric histories and global emissions of halons H ₁₂₁₁ (CBrClF ₂), H ₁₃₀₁ (CBrF ₃), and H ₂₄₀₂ (CBrF ₂ CBrF ₂). <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 3663-3686.	1.2	24
14	Continued emissions of carbon tetrachloride from the United States nearly two decades after its phaseout for dispersive uses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 2880-2885.	3.3	32
15	Simulation of atmospheric N ₂ O with GEOS-Chem and its adjoint: evaluation of observational constraints. <i>Geoscientific Model Development</i> , 2015, 8, 3179-3198.	1.3	15
16	State of the Climate in 2014. <i>Bulletin of the American Meteorological Society</i> , 2015, 96, ES1-ES32.	1.7	78
17	State of the Climate in 2013. <i>Bulletin of the American Meteorological Society</i> , 2014, 95, S1-S279.	1.7	138
18	Constraining the carbon tetrachloride (CCl ₄) budget using its global trend and interhemispheric gradient. <i>Geophysical Research Letters</i> , 2014, 41, 5307-5315.	1.5	38

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19	Stratospheric lifetime ratio of CFC-11 and CFC-12 from satellite and model climatologies. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 12479-12497.	1.9	20
20	Nitrous oxide emissions 1999 to 2009 from a global atmospheric inversion. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 1801-1817.	1.9	59
21	Global and regional emissions estimates for N ₂ O. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 4617-4641.	1.9	91
22	Re-evaluation of the lifetimes of the major CFCs and CH ₃ Cl using atmospheric trends. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 2691-2702.	1.9	105
23	Interannual fluctuations in the seasonal cycle of nitrous oxide and chlorofluorocarbons due to the Brewer-Dobson circulation. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 10,694.	1.2	5
24	State of the Climate in 2012. <i>Bulletin of the American Meteorological Society</i> , 2013, 94, S1-S258.	1.7	129
25	Tropospheric SF ₆ : Age of air from the Northern Hemisphere midlatitude surface. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 11,429.	1.2	37
26	Interannual variability in tropospheric nitrous oxide. <i>Geophysical Research Letters</i> , 2013, 40, 4426-4431.	1.5	15
27	Global CFC-11 (CCl ₃ F) and CFC-12 (CCl ₂ F ₂) measurements with the Michelson Interferometer for Passive Atmospheric Sounding (MIPAS): retrieval, climatologies and trends. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 11857-11875.	1.9	49
28	State of the Climate in 2011. <i>Bulletin of the American Meteorological Society</i> , 2012, 93, S1-S282.	1.7	121
29	Exploring causes of interannual variability in the seasonal cycles of tropospheric nitrous oxide. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 3713-3730.	1.9	60
30	Improving measurements of SF ₆ for the study of atmospheric transport and emissions. <i>Atmospheric Measurement Techniques</i> , 2011, 4, 2441-2451.	1.2	59
31	Atmospheric three-dimensional inverse modeling of regional industrial emissions and global oceanic uptake of carbon tetrachloride. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 10421-10434.	1.9	32
32	History of atmospheric SF ₆ from 1973 to 2008. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 10305-10320.	1.9	136
33	Optimal estimation of the surface fluxes of methyl chloride using a 3-D global chemical transport model. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 5515-5533.	1.9	51
34	Transport mechanisms for synoptic, seasonal and interannual SF ₆ variations and "age" of air in troposphere. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 1209-1225.	1.9	71
35	State of the Climate in 2008. <i>Bulletin of the American Meteorological Society</i> , 2009, 90, S1-S196.	1.7	74
36	Estimation of regional emissions of nitrous oxide from 1997 to 2005 using multinetwork measurements, a chemical transport model, and an inverse method. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	92

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37	The NOAA nitrous oxide standard scale for atmospheric observations. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	129
38	Three-dimensional SF ₆ data and tropospheric transport simulations: Signals, modeling accuracy, and implications for inverse modeling. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	35
39	State of the Climate in 2005. <i>Bulletin of the American Meteorological Society</i> , 2006, 87, s1-s102.	1.7	39
40	Toward regional-scale modeling using the two-way nested global model TM5: Characterization of transport using SF6. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	73
41	Balloonborne in situ gas chromatograph for measurements in the troposphere and stratosphere. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	32
42	Urban/industrial pollution for the New York City–Washington, D. C., corridor, 1996–1998: 1. Providing independent verification of CO and PCE emissions inventories. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	12
43	Urban/industrial pollution for the New York City–Washington, D. C., corridor, 1996–1998: 2. A study of the efficacy of the Montreal Protocol and other regulatory measures. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	17
44	Hydrogen in the atmosphere: Observations above a forest canopy in a polluted environment. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	39
45	Chlorine budget and partitioning during the Stratospheric Aerosol and Gas Experiment (SAGE) III Ozone Loss and Validation Experiment (SOLVE). <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	69
46	Descent and mixing in the 1999–2000 northern polar vortex inferred from in situ tracer measurements. <i>Journal of Geophysical Research</i> , 2002, 107, SOL 28-1.	3.3	64
47	Mean ages of stratospheric air derived from in situ observations of CO ₂ , CH ₄ , and N ₂ O. <i>Journal of Geophysical Research</i> , 2001, 106, 32295-32314.	3.3	181
48	In Situ Measurements of Long-Lived Trace Gases in the Lower Stratosphere by Gas Chromatography. <i>Journal of Atmospheric and Oceanic Technology</i> , 2001, 18, 1195-1204.	0.5	37
49	Comparison of in situ N ₂ O and CH ₄ measurements in the upper troposphere and lower stratosphere during STRAT and POLARIS. <i>Journal of Geophysical Research</i> , 2000, 105, 19811-19822.	3.3	5
50	An examination of the inorganic chlorine budget in the lower stratosphere. <i>Journal of Geophysical Research</i> , 2000, 105, 1957-1971.	3.3	33
51	Closure of the total hydrogen budget of the northern extratropical lower stratosphere. <i>Journal of Geophysical Research</i> , 1999, 104, 8191-8200.	3.3	39
52	The budget and partitioning of stratospheric chlorine during the 1997 Arctic summer. <i>Journal of Geophysical Research</i> , 1999, 104, 26653-26665.	3.3	31
53	Transport into the northern hemisphere lowermost stratosphere revealed by in situ tracer measurements. <i>Journal of Geophysical Research</i> , 1999, 104, 26565-26580.	3.3	117
54	Effect of the tropospheric trend on the stratospheric tracer-tracer correlations: Methyl chloroform. <i>Journal of Geophysical Research</i> , 1999, 104, 26643-26652.	3.3	7

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55	Distribution of halon-1211 in the upper troposphere and lower stratosphere and the 1994 total bromine budget. <i>Journal of Geophysical Research</i> , 1998, 103, 1513-1526.	3.3	131
56	Dehydration and denitrification in the Arctic Polar Vortex during the 1995-1996 winter. <i>Geophysical Research Letters</i> , 1998, 25, 501-504.	1.5	33
57	Three-dimensional simulations of long-lived tracers using winds from MACCM2. <i>Journal of Geophysical Research</i> , 1997, 102, 21493-21513.	3.3	64
58	Evaluation of source gas lifetimes from stratospheric observations. <i>Journal of Geophysical Research</i> , 1997, 102, 25543-25564.	3.3	214
59	Mixing of polar vortex air into middle latitudes as revealed by tracer-tracer scatterplots. <i>Journal of Geophysical Research</i> , 1997, 102, 13119-13134.	3.3	144
60	Measurements of polar vortex air in the midlatitudes. <i>Journal of Geophysical Research</i> , 1996, 101, 12879-12891.	3.3	44
61	Airborne gas chromatograph for in situ measurements of long-lived species in the upper troposphere and lower stratosphere. <i>Geophysical Research Letters</i> , 1996, 23, 347-350.	1.5	158
62	A comparison of measurements from ATMOS and instruments aboard the ER-2 aircraft: Halogenated gases. <i>Geophysical Research Letters</i> , 1996, 23, 2393-2396.	1.5	29
63	Quantifying Transport Between the Tropical and Mid-Latitude Lower Stratosphere. <i>Science</i> , 1996, 272, 1763-1768.	6.0	157
64	Vertical transport rates in the stratosphere in 1993 from observations of CO ₂ , N ₂ O and CH ₄ . <i>Geophysical Research Letters</i> , 1994, 21, 2571-2574.	1.5	14
65	An examination of the total hydrogen budget of the lower stratosphere. <i>Geophysical Research Letters</i> , 1994, 21, 2563-2566.	1.5	78
66	The distribution of hydrogen, nitrogen, and chlorine radicals in the lower stratosphere: Implications for changes in O ₃ due to emission of NO _y from supersonic aircraft. <i>Geophysical Research Letters</i> , 1994, 21, 2547-2550.	1.5	67
67	The diurnal variation of hydrogen, nitrogen, and chlorine radicals: Implications for the heterogeneous production of HNO ₂ . <i>Geophysical Research Letters</i> , 1994, 21, 2551-2554.	1.5	76
68	Spring measurements of tropospheric bromine at Barrow, Alaska. <i>Geophysical Research Letters</i> , 1993, 20, 201-204.	1.5	19