Darryn W Waugh

List of Publications by Year
in descending order

213 papers	13,009 citations	19608 61 h-index	30848 102 g-index
262 all docs	262 docs citations	262 times ranked	7868 citing authors

#	Article	IF	Citations
1	Age of stratospheric air: Theory, observations, and models. Reviews of Geophysics, 2002, 40, 1-1.	9.0	553
2	Stratospheric Ozone Depletion: The Main Driver of Twentieth-Century Atmospheric Circulation Changes in the Southern Hemisphere. Journal of Climate, 2011, 24, 795-812.	1.2	529
3	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
4	Upward Wave Activity Flux as a Precursor to Extreme Stratospheric Events and Subsequent Anomalous Surface Weather Regimes. Journal of Climate, 2004, 17, 3548-3554.	1.2	355
5	Multimodel projections of stratospheric ozone in the 21st century. Journal of Geophysical Research, 2007, 112, .	3.3	308
6	The Impact of Stratospheric Ozone Recovery on the Southern Hemisphere Westerly Jet. Science, 2008, 320, 1486-1489.	6.0	307
7	Chemistryâ€"Climate Model Simulations of Twenty-First Century Stratospheric Climate and Circulation Changes. Journal of Climate, 2010, 23, 5349-5374.	1.2	280
8	Ozone database in support of CMIP5 simulations: results and corresponding radiative forcing. Atmospheric Chemistry and Physics, 2011, 11, 11267-11292.	1.9	244
9	A new formulation of equivalent effective stratospheric chlorine (EESC). Atmospheric Chemistry and Physics, 2007, 7, 4537-4552.	1.9	241
10	Climatology of Arctic and Antarctic Polar Vortices Using Elliptical Diagnostics. Journals of the Atmospheric Sciences, 1999, 56, 1594-1613.	0.6	217
11	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
12	Climatology of intrusions into the tropical upper troposphere. Geophysical Research Letters, 2000, 27, 3857-3860.	1.5	206
13	Transport out of the lower stratospheric Arctic vortex by Rossby wave breaking. Journal of Geophysical Research, 1994, 99, 1071.	3.3	198
14	Persistence of the lower stratospheric polar vortices. Journal of Geophysical Research, 1999, 104, 27191-27201.	3.3	197
15	Quantification of the inelastic interaction of unequal vortices in twoâ€dimensional vortex dynamics. Physics of Fluids A, Fluid Dynamics, 1992, 4, 1737-1744.	1.6	188
16	Anthropogenic CO2 in the oceans estimated using transit time distributions. Tellus, Series B: Chemical and Physical Meteorology, 2006, 58, 376-389.	0.8	181
17	Evaluation of transport in stratospheric models. Journal of Geophysical Research, 1999, 104, 18815-18839.	3.3	175
18	Contour Advection with Surgery: A Technique for Investigating Finescale Structure in Tracer Transport. Journals of the Atmospheric Sciences, 1994, 51, 530-540.	0.6	171

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19	Relationships among tracer ages. Journal of Geophysical Research, 2003, 108, .	3.3	168
20	Ozone hole and Southern Hemisphere climate change. Geophysical Research Letters, 2009, 36, .	1.5	167
21	What Is the Polar Vortex and How Does It Influence Weather?. Bulletin of the American Meteorological Society, 2017, 98, 37-44.	1.7	162
22	Review of the formulation of presentâ€generation stratospheric chemistryâ€climate models and associated external forcings. Journal of Geophysical Research, 2010, 115, .	3.3	150
23	Mixing of polar vortex air into middle latitudes as revealed by tracer-tracer scatterplots. Journal of Geophysical Research, 1997, 102, 13119-13134.	3.3	144
24	Intrusions into the lower stratospheric Arctic vortex during the winter of 1991â€"1992. Journal of Geophysical Research, 1994, 99, 1089.	3.3	140
25	A Strategy for Process-Oriented Validation of Coupled Chemistryâ€"Climate Models. Bulletin of the American Meteorological Society, 2005, 86, 1117-1134.	1.7	139
26	Does the Holtonâ€"Tan Mechanism Explain How the Quasi-Biennial Oscillation Modulates the Arctic Polar Vortex?. Journals of the Atmospheric Sciences, 2012, 69, 1713-1733.	0.6	135
27	Transport times and anthropogenic carbon in the subpolar North Atlantic Ocean. Deep-Sea Research Part I: Oceanographic Research Papers, 2004, 51, 1475-1491.	0.6	131
28	Recent Changes in the Ventilation of the Southern Oceans. Science, 2013, 339, 568-570.	6.0	129
29	Observed connection between stratospheric sudden warmings and the Maddenâ€Julian Oscillation. Geophysical Research Letters, 2012, 39, .	1.5	128
30	Anthropogenic carbon distributions in the Atlantic Ocean: data-based estimates from the Arctic to the Antarctic. Biogeosciences, 2009, 6, 439-451.	1.3	121
31	A pause in Southern Hemisphere circulation trends due to the Montreal Protocol. Nature, 2020, 579, 544-548.	13.7	106
32	Influence of Barotropic Shear on the Poleward Advection of Upper-Tropospheric Air. Journals of the Atmospheric Sciences, 1996, 53, 3013-3031.	0.6	105
33	On the Subtropical Edge of the Stratospheric Surf Zone. Journals of the Atmospheric Sciences, 1995, 52, 1288-1309.	0.6	104
34	Inferring the concentration of anthropogenic carbon in the ocean from tracers. Global Biogeochemical Cycles, 2002, 16, 78-1-78-15.	1.9	102
35	Seasonal variation of isentropic transport out of the tropical stratosphere. Journal of Geophysical Research, 1996, 101, 4007-4023.	3.3	98
36	The Effect of Tropospheric Jet Latitude on Coupling between the Stratospheric Polar Vortex and the Troposphere. Journal of Climate, 2013, 26, 2077-2095.	1.2	98

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37	The ozone response to ENSO in Aura satellite measurements and a chemistryâ€climate simulation. Journal of Geophysical Research D: Atmospheres, 2013, 118, 965-976.	1.2	98
38	Impacts of climate change on stratospheric ozone recovery. Geophysical Research Letters, 2009, 36, .	1.5	97
39	The effects of mixing on tracer relationships in the polar vortices. Journal of Geophysical Research, 2000, 105, 10047-10062.	3.3	95
40	An estimate of anthropogenic CO2 inventory from decadal changes in oceanic carbon content. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 3037-3042.	3.3	92
41	Quantitative performance metrics for stratospheric-resolving chemistry-climate models. Atmospheric Chemistry and Physics, 2008, 8, 5699-5713.	1.9	90
42	The response of tropical tropospheric ozone to ENSO. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	90
43	Modifications of the quasiâ€biennial oscillation by a geoengineering perturbation of the stratospheric aerosol layer. Geophysical Research Letters, 2014, 41, 1738-1744.	1.5	90
44	Recent Tropical Expansion: Natural Variability or Forced Response?. Journal of Climate, 2019, 32, 1551-1571.	1.2	87
45	Elliptical diagnostics of stratospheric polar vortices. Quarterly Journal of the Royal Meteorological Society, 1997, 123, 1725-1748.	1.0	85
46	The efficiency of symmetric vortex merger. Physics of Fluids A, Fluid Dynamics, 1992, 4, 1745-1758.	1.6	83
47	Are the teleconnections of Central Pacific and Eastern Pacific El NiÃ±o distinct in boreal wintertime?. Climate Dynamics, 2013, 41, 1835-1852.	1.7	83
48	Drivers of the Recent Tropical Expansion in the Southern Hemisphere: Changing SSTs or Ozone Depletion?. Journal of Climate, 2015, 28, 6581-6586.	1.2	83
49	Reduced Urban Heat Island intensity under warmer conditions. Environmental Research Letters, 2018, 13, 064003.	2.2	77
50	Spatial Variations of Stirring in the Surface Ocean: A Case Study of the Tasman Sea. Journal of Physical Oceanography, 2006, 36, 526-542.	0.7	76
51	Stirring in the global surface ocean. Geophysical Research Letters, 2008, 35, .	1.5	76
52	Effect of zonal asymmetries in stratospheric ozone on simulated Southern Hemisphere climate trends. Geophysical Research Letters, 2009, 36, .	1.5	75
53	On the influence of anthropogenic forcings on changes in the stratospheric mean age. Journal of Geophysical Research, 2009, 114, .	3.3	75
54	Why might stratospheric sudden warmings occur with similar frequency in El NiÃ±o and La NiÃ±a winters?. Journal of Geophysical Research, 2012, 117, .	3.3	75

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55	Interannual Variability in the Decay of Lower Stratospheric Arctic Vortices.. Journal of the Meteorological Society of Japan, 2002, 80, 997-1012.	0.7	73
56	Impact of potential vorticity intrusions on subtropical upper tropospheric humidity. Journal of Geophysical Research, 2005, 110, .	3.3	72
57	Impact of Rossby Wave Breaking on U.S. West Coast Winter Precipitation during ENSO Events. Journal of Climate, 2013, 26, 6360-6382.	1.2	71
58	Subtropical stratospheric mixing linked to disturbances in the polar vortices. Nature, 1993, 365, 535-537.	13.7	70
59	The Impact of Stratospheric Ozone Recovery on Tropopause Height Trends. Journal of Climate, 2009, 22, 429-445.	1.2	68
60	Intrusions into the Tropical Upper Troposphere: Three-Dimensional Structure and Accompanying Ozone and OLR Distributions. Journals of the Atmospheric Sciences, 2003, 60, 637-653.	0.6	68
61	Multimodel assessment of the factors driving stratospheric ozone evolution over the 21st century. Journal of Geophysical Research, 2010, 115, .	3.3	66
62	Estimates of anthropogenic carbon in the Indian Ocean with allowance for mixing and time-varying air-sea CO2disequilibrium. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	1.9	65
63	Connections between Potential Vorticity Intrusions and Convection in the Eastern Tropical Pacific. Journals of the Atmospheric Sciences, 2008, 65, 987-1002.	0.6	65
64	Three-dimensional simulations of long-lived tracers using winds from MACCM2. Journal of Geophysical Research, 1997, 102, 21493-21513.	3.3	64
65	Largeâ€Scale Atmospheric Transport in <scp>GEOS</scp> Replay Simulations. Journal of Advances in Modeling Earth Systems, 2017, 9, 2545-2560.	1.3	64
66	Use of SF₆ to estimate anthropogenic CO₂ in the upper ocean. Journal of Geophysical Research, 2008, 113, .	3.3	63
67	Recent Hadley cell expansion: The role of internal atmospheric variability in reconciling modeled and observed trends. Geophysical Research Letters, 2015, 42, 10,824.	1.5	62
68	Revisiting the Relationship among Metrics of Tropical Expansion. Journal of Climate, 2018, 31, 7565-7581.	1.2	61
69	Highâ€altitude dust layers on Mars: Observations with the Thermal Emission Spectrometer. Journal of Geophysical Research E: Planets, 2013, 118, 1177-1194.	1.5	60
70	The link between cut-off lows and Rossby wave breaking in the Southern Hemisphere. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 869-885.	1.0	59
71	Timescales for the stratospheric circulation derived from tracers. Journal of Geophysical Research, 1997, 102, 8991-9001.	3.3	57
72	Stratospheric polar vortices. Geophysical Monograph Series, 2010, , 43-57.	0.1	54

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73	Tracer transport in the tropical stratosphere due to vertical diffusion and horizontal mixing. Geophysical Research Letters, 1997, 24, 1383-1386.	1.5	53
74	The age of stratospheric air. Nature Geoscience, 2009, 2, 14-16.	5.4	53
75	Understanding the Changes of Stratospheric Water Vapor in Coupled Chemistryâ€“Climate Model Simulations. Journals of the Atmospheric Sciences, 2008, 65, 3278-3291.	0.6	51
76	Temperature and heat in informal settlements in Nairobi. PLoS ONE, 2017, 12, e0187300.	1.1	50
77	Contrasting upper and lower atmospheric metrics of tropical expansion in the Southern Hemisphere. Geophysical Research Letters, 2016, 43, 10,496.	1.5	48
78	Temperature trends in the tropical upper troposphere and lower stratosphere: Connections with sea surface temperatures and implications for water vapor and ozone. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9658-9672.	1.2	47
79	Observations of planetary waves and nonmigrating tides by the Mars Climate Sounder. Journal of Geophysical Research, 2012, 117, .	3.3	45
80	Respiratory Effects of Indoor Heat and the Interaction with Air Pollution in Chronic Obstructive Pulmonary Disease. Annals of the American Thoracic Society, 2016, 13, 2125-2131.	1.5	45
81	The stability of filamentary vorticity in two-dimensional geophysical vortex-dynamics models. Journal of Fluid Mechanics, 1991, 231, 575-598.	1.4	44
82	Airâ€mass origin in the tropical lower stratosphere: The influence of Asian boundary layer air. Geophysical Research Letters, 2015, 42, 4240-4248.	1.5	44
83	Southern Hemisphere extratropical circulation: Recent trends and natural variability. Geophysical Research Letters, 2015, 42, 5508-5515.	1.5	42
84	The TropD software package (v1): standardized methods for calculating tropical-width diagnostics. Geoscientific Model Development, 2018, 11, 4339-4357.	1.3	42
85	Methods of Calculating Transport across the Polar Vortex Edge. Journals of the Atmospheric Sciences, 1997, 54, 2241-2260.	0.6	41
86	Influence of nonlocal chemistry on tracer distributions: Inferring the mean age of air from SF6. Journal of Geophysical Research, 1998, 103, 13327-13336.	3.3	40
87	Mechanisms and feedback causing changes in upper stratospheric ozone in the 21st century. Journal of Geophysical Research, 2010, 115, .	3.3	40
88	Viscoelastic response of a floating ice plate to a steadily moving load. Journal of Fluid Mechanics, 1988, 196, 409-430.	1.4	39
89	Response of trace gases to the disrupted 2015â€“2016 quasi-biennial oscillation. Atmospheric Chemistry and Physics, 2017, 17, 6813-6823.	1.9	39
90	Rossby Wave Breaking in the Southern Hemisphere Wintertime Upper Troposphere. Monthly Weather Review, 2003, 131, 2623-2634.	0.5	38

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91	A Climatology of Rossby Wave Breaking on the Southern Hemisphere Tropopause. Journals of the Atmospheric Sciences, 2011, 68, 798-811.	0.6	38
92	Classification of atmospheric river events on the U.S. West Coast using a trajectory model. Journal of Geophysical Research D: Atmospheres, 2015, 120, 3007-3028.	1.2	38
93	Isolating the roles of different forcing agents in global stratospheric temperature changes using model integrations with incrementally added single forcings. Journal of Geophysical Research D: Atmospheres, 2016, 121, 8067-8082.	1.2	38
94	Is upper stratospheric chlorine decreasing as expected?. Geophysical Research Letters, 2001, 28, 1187-1190.	1.5	37
95	The impact of a realistic vertical dust distribution on the simulation of the Martian General Circulation. Journal of Geophysical Research E: Planets, 2013, 118, 980-993.	1.5	37
96	Tropospheric SF₆: Age of air from the Northern Hemisphere midlatitude surface. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,429.	1.2	37
97	Impacts of Interactive Stratospheric Chemistry on Antarctic and Southern Ocean Climate Change in the Goddard Earth Observing System, Version 5 (GEOS-5). Journal of Climate, 2016, 29, 3199-3218.	1.2	36
98	The Impact of Ozone-Depleting Substances on Tropical Upwelling, as Revealed by the Absence of Lower-Stratospheric Cooling since the Late 1990s. Journal of Climate, 2017, 30, 2523-2534.	1.2	36
99	On transit-time distributions in unsteady circulation models. Ocean Modelling, 2008, 21, 35-45.	1.0	35
100	Martian polar vortices: Comparison of reanalyses. Journal of Geophysical Research E: Planets, 2016, 121, 1770-1785.	1.5	35
101	Tropospheric transport differences between models using the same largeâ€scale meteorological fields. Geophysical Research Letters, 2017, 44, 1068-1078.	1.5	34
102	Transit time distributions in Lake Issyk-Kul. Geophysical Research Letters, 2002, 29, 84-1-84-4.	1.5	33
103	Contrasting Effects of Central Pacific and Eastern Pacific El NiÃ±o on stratospheric water vapor. Geophysical Research Letters, 2013, 40, 4115-4120.	1.5	33
104	Large-scale tropospheric transport in the Chemistryâ€"Climate Model Initiative (CCMI) simulations. Atmospheric Chemistry and Physics, 2018, 18, 7217-7235.	1.9	32
105	A New Look at Modeling Surface Heterogeneity: Extending Its Influence in the Vertical. Journal of Hydrometeorology, 2003, 4, 810-825.	0.7	31
106	Airâ€mass origin as a diagnostic of tropospheric transport. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1459-1470.	1.2	31
107	Tropical Widening: From Global Variations to Regional Impacts. Bulletin of the American Meteorological Society, 2020, 101, E897-E904.	1.7	31
108	The Dependence of Rossby Wave Breaking on the Vertical Structure of the Polar Vortex. Journals of the Atmospheric Sciences, 1999, 56, 2359-2375.	0.6	30

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109	Stratospheric residence time and its relationship to mean age. Journal of Geophysical Research, 2000, 105, 6773-6782.	3.3	30
110	Seasonal variation of ozone in the tropical lower stratosphere: Southern tropics are different from northern tropics. Journal of Geophysical Research D: Atmospheres, 2014, 119, 6196-6206.	1.2	30
111	Time-varying changes in the simulated structure of the Brewerâ€"Dobson Circulation. Atmospheric Chemistry and Physics, 2017, 17, 1313-1327.	1.9	30
112	Connections between summer air pollution and stagnation. Environmental Research Letters, 2018, 13, 084001.	2.2	30
113	Seasonal variations of stratospheric age spectra in the Goddard Earth Observing System Chemistry Climate Model (GEOSCCM). Journal of Geophysical Research, 2012, 117, .	3.3	29
114	Nonlinear, Barotropic Response to a Localized Topographic Forcing: Formation of a â€œTropical Surf Zoneâ€•and Its Effect on Interhemispheric Propagation. Journals of the Atmospheric Sciences, 1994, 51, 1401-1416.	0.6	28
115	The Global Modeling Initiative assessment model: Application to high-speed civil transport perturbation. Journal of Geophysical Research, 2001, 106, 1693-1711.	3.3	28
116	Enhancement of Rossby Wave Breaking by Steep Potential Vorticity Gradients in the Winter Stratosphere. Journals of the Atmospheric Sciences, 2004, 61, 904-918.	0.6	28
117	Estimating changes in ocean ventilation from early 1990s CFCâ€•12 and late 2000s SF₆ measurements. Geophysical Research Letters, 2013, 40, 927-932.	1.5	28
118	Impact of future nitrous oxide and carbon dioxide emissions on the stratospheric ozone layer. Environmental Research Letters, 2015, 10, 034011.	2.2	28
119	Evaluating methods for spatial mapping: Applications for estimating ozone concentrations across the contiguous United States. Environmental Technology and Innovation, 2015, 3, 1-10.	3.0	28
120	What causes Mars' annular polar vortices?. Geophysical Research Letters, 2017, 44, 71-78.	1.5	28
121	Ventilation Rates Estimated from Tracers in the Presence of Mixing. Journal of Physical Oceanography, 2007, 37, 2599-2611.	0.7	26
122	The effect of dust on the martian polar vortices. Icarus, 2016, 278, 100-118.	1.1	26
123	The Transit-Time Distribution from the Northern Hemisphere Midlatitude Surface. Journals of the Atmospheric Sciences, 2016, 73, 3785-3802.	0.6	26
124	Disconnect Between Hadley Cell and Subtropical Jet Variability and Response to Increased CO₂. Geophysical Research Letters, 2019, 46, 7045-7053.	1.5	26
125	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
126	Impact of climate change on the frequency of Northern Hemisphere summer cyclones. Journal of Geophysical Research, 2011, 116, .	3.3	25

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127	The Transient Response of the Southern Ocean to Stratospheric Ozone Depletion. Journal of Climate, 2016, 29, 7383-7396.	1.2	25
128	Contour Surgery Simulations of a Forced Polar Vortex. Journals of the Atmospheric Sciences, 1993, 50, 714-730.	0.6	24
129	Very low ozone episodes due to polar vortex displacement. Tellus, Series B: Chemical and Physical Meteorology, 2022, 52, 1123.	0.8	24
130	Sensitivity of stratospheric inorganic chlorine to differences in transport. Atmospheric Chemistry and Physics, 2007, 7, 4935-4941.	1.9	24
131	Longâ€term changes in stratospheric age spectra in the 21st century in the Goddard Earth Observing System Chemistryâ€Climate Model (GEOSCCM). Journal of Geophysical Research, 2012, 117, .	3.3	24
132	The Stability of Marsâ€™s Annular Polar Vortex. Journals of the Atmospheric Sciences, 2017, 74, 1533-1547.	0.6	24
133	Disentangling the Drivers of the Summertime Ozoneâ€Temperature Relationship Over the United States. Journal of Geophysical Research D: Atmospheres, 2019, 124, 10503-10524.	1.2	24
134	Propagation of Tracer Signals in Boundary Currents. Journal of Physical Oceanography, 2005, 35, 1538-1552.	0.7	23
135	Intraurban Temperature Variability in Baltimore. Journal of Applied Meteorology and Climatology, 2017, 56, 159-171.	0.6	23
136	Response of Southern Ocean Ventilation to Changes in Midlatitude Westerly Winds. Journal of Climate, 2019, 32, 5345-5361.	1.2	23
137	The Southern Ocean Sea Surface Temperature Response to Ozone Depletion: A Multimodel Comparison. Journal of Climate, 2019, 32, 5107-5121.	1.2	22
138	Diagnosing Ocean Stirring: Comparison of Relative Dispersion and Finite-Time Lyapunov Exponents. Journal of Physical Oceanography, 2012, 42, 1173-1185.	0.7	21
139	Interhemispheric transit time distributions and pathâ€dependent lifetimes constrained by measurements of SF₆, CFCs, and CFC replacements. Geophysical Research Letters, 2015, 42, 4581-4589.	1.5	21
140	Robustness of the Simulated Tropospheric Response to Ozone Depletion. Journal of Climate, 2017, 30, 2577-2585.	1.2	21
141	Ventilation of the Southern Ocean Pycnocline. Annual Review of Marine Science, 2022, 14, 405-430.	5.1	21
142	Vacillations in a Shallow-Water Model of the Stratosphere. Journals of the Atmospheric Sciences, 2004, 61, 1174-1185.	0.6	20
143	Spatial and temporal variation in the isotopic composition of Ethiopian precipitation. Journal of Hydrology, 2020, 585, 124364.	2.3	20
144	Uncertainty in Model Predictions of Vibrio vulnificus Response to Climate Variability and Change: A Chesapeake Bay Case Study. PLoS ONE, 2014, 9, e98256.	1.1	20

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145	Transient Response of the Southern Ocean to Changing Ozone: Regional Responses and Physical Mechanisms. Journal of Climate, 2017, 30, 2463-2480.	1.2	19
146	Sensitivity of mean age and long-lived tracers to transport parameters in a two-dimensional model. Journal of Geophysical Research, 1999, 104, 30559-30569.	3.3	18
147	A method for estimating the extent of denitrification of arctic polar vortex air from tracer-tracer scatter plots. Journal of Geophysical Research, 2002, 107, ACH 6-1.	3.3	18
148	Variations in stratospheric inorganic chlorine between 1991 and 2006. Geophysical Research Letters, 2007, 34, .	1.5	18
149	Variability of subtropical upper tropospheric humidity. Atmospheric Chemistry and Physics, 2008, 8, 2643-2655.	1.9	18
150	Airmass Origin in the Arctic. Part I: Seasonality. Journal of Climate, 2015, 28, 4997-5014.	1.2	18
151	Spatial and temporal variability of interhemispheric transport times. Atmospheric Chemistry and Physics, 2018, 18, 7439-7452.	1.9	18
152	How Frequent Are Antarctic Sudden Stratospheric Warmings in Present and Future Climate?. Geophysical Research Letters, 2021, 48, e2021GL093215.	1.5	18
153	PDFs of Tropical Tropospheric Humidity: Measurements and Theory. Journal of Climate, 2009, 22, 3357-3373.	1.2	17
154	Fine-scale, poleward transport of tropical air during AASE 2. Geophysical Research Letters, 1994, 21, 2603-2606.	1.5	16
155	Very low ozone episodes due to polar vortex displacement. Tellus, Series B: Chemical and Physical Meteorology, 2000, 52, 1123-1137.	0.8	16
156	Tropospheric Rossby Wave Breaking and Variability of the Latitude of the Eddy-Driven Jet. Journal of Climate, 2014, 27, 7069-7085.	1.2	16
157	The Impact of Boreal Summer ENSO Events on Tropical Lower Stratospheric Ozone. Journal of Geophysical Research D: Atmospheres, 2018, 123, 9843-9857.	1.2	16
158	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
159	Narrowing of the upwelling branch of the Brewerâ€Dobson circulation and Hadley cell in chemistryâ€climate model simulations of the 21st century. Geophysical Research Letters, 2010, 37, .	1.5	15
160	The Influence of the Lower Stratosphere on Ridging Atlantic Ocean Anticyclones over South Africa. Journal of Climate, 2018, 31, 6175-6187.	1.2	15
161	The Impact on a GCM Climate of an Extended Mosaic Technique for the Landâ€“Atmosphere Coupling. Journal of Climate, 2004, 17, 3877-3891.	1.2	14
162	Changes in the ventilation of the southern oceans. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130269.	1.6	14

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163	Age of martian air: Time scales for martian atmospheric transport. Icarus, 2019, 317, 148-157.	1.1	14
164	Antarctic ozone depletion and trends in tropopause Rossby wave breaking. Atmospheric Science Letters, 2012, 13, 164-168.	0.8	13
165	Contrasting Recent Trends in Southern Hemisphere Westerlies Across Different Ocean Basins. Geophysical Research Letters, 2020, 47, e2020GL088890.	1.5	13
166	Predictive skill of an NWP system in the southern lower stratosphere. Quarterly Journal of the Royal Meteorological Society, 1998, 124, 2181-2200.	1.0	12
167	Chemistryâ€climate model simulations of recent trends in lower stratospheric temperature and stratospheric residual circulation. Journal of Geophysical Research, 2012, 117, .	3.3	12
168	Large Uncertainty in the Relative Rates of Dynamical and Hydrological Tropical Expansion. Geophysical Research Letters, 2018, 45, 1106-1113.	1.5	12
169	Evaluating Simulations of Interhemispheric Transport: Interhemispheric Exchange Time Versus SF₆ Age. Geophysical Research Letters, 2019, 46, 1113-1120.	1.5	12
170	Surface Ozoneâ€Meteorology Relationships: Spatial Variations and the Role of the Jet Stream. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032735.	1.2	12
171	Interannual SAM Modulation of Antarctic Sea Ice Extent Does Not Account for Its Longâ€Term Trends, Pointing to a Limited Role for Ozone Depletion. Geophysical Research Letters, 2021, 48, e2021GL094871.	1.5	12
172	Southern Hemisphere Stationary Wave Response to Changes of Ozone and Greenhouse Gases. Journal of Climate, 2013, 26, 10205-10217.	1.2	11
173	Air-mass Origin in the Arctic. Part II: Response to Increases in Greenhouse Gases. Journal of Climate, 2015, 28, 9105-9120.	1.2	11
174	The role of monsoonâ€like zonally asymmetric heating in interhemispheric transport. Journal of Geophysical Research D: Atmospheres, 2017, 122, 3282-3298.	1.2	11
175	Interannual variability of stratospheric trace gases: The role of extratropical wave driving. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 2459-2474.	1.0	10
176	Connections between the Spring Breakup of the Southern Hemisphere Polar Vortex, Stationary Waves, and Airâ€“Sea Roughness. Journals of the Atmospheric Sciences, 2013, 70, 2137-2151.	0.6	10
177	The impact of greenhouse gases on past changes in tropospheric ozone. Journal of Geophysical Research, 2012, 117, .	3.3	9
178	Relationship between Ocean Carbon and Heat Multidecadal Variability. Journal of Climate, 2018, 31, 1467-1482.	1.2	9
179	Evaluation of the transport in the Goddard Space Flight Center threeâ€dimensional chemical transport model using the equivalent length diagnostic. Journal of Geophysical Research, 2003, 108, .	3.3	8
180	Variability and potential sources of summer PM2.5 in the Northeastern United States. Atmospheric Environment, 2015, 117, 259-270.	1.9	8

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181	Large-scale transport into the Arctic: the roles of the midlatitude jet and the Hadley Cell. Atmospheric Chemistry and Physics, 2019, 19, 5511-5528.	1.9	8
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