Richard S Stolarski

List of Publications by Year
in descending order

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81 papers	4,643 citations	109321 35 h-index	102487 66 g-index
82 all docs	82 docs citations	82 times ranked	2653 citing authors

#	Article	IF	Citations
1	Total Ozone trends deduced from Nimbus 7 Toms data. Geophysical Research Letters, 1991, 18, 1015-1018.	4.0	470
2	Nimbus 7 satellite measurements of the springtime Antarctic ozone decrease. Nature, 1986, 322, 808-811.	27.8	414
3	Record Low Global Ozone in 1992. Science, 1993, 260, 523-526.	12.6	326
4	Anomalously low ozone over the Arctic. Geophysical Research Letters, 1997, 24, 2689-2692.	4.0	177
5	Changes in Column Ozone Correlated with the Stratospheric EP Flux.. Journal of the Meteorological Society of Japan, 2002, 80, 849-862.	1.8	173
6	What would have happened to the ozone layer if chlorofluorocarbons (CFCs) had not been regulated?. Atmospheric Chemistry and Physics, 2009, 9, 2113-2128.	4.9	165
7	Goddard Earth Observing System chemistryâ€climate model simulations of stratospheric ozoneâ€temperature coupling between 1950 and 2005. Journal of Geophysical Research, 2008, 113, .	3.3	144
8	State of the Climate in 2010. Bulletin of the American Meteorological Society, 2011, 92, S1-S236.	3.3	135
9	Interhemispheric differences in springtime production of HCl and ClONO2in the polar vortices. Journal of Geophysical Research, 1995, 100, 13967.	3.3	124
10	State of the Climate in 2011. Bulletin of the American Meteorological Society, 2012, 93, S1-S282.	3.3	121
11	The Antarctic Ozone Hole. Scientific American, 1988, 258, 30-36.	1.0	113
12	Stratospheric ozone in the post-CFC era. Atmospheric Chemistry and Physics, 2009, 9, 2207-2213.	4.9	108
13	Gammaâ€Ray Bursts and the Earth: Exploration of Atmospheric, Biological, Climatic, and Biogeochemical Effects. Astrophysical Journal, 2005, 634, 509-533.	4.5	107
14	Trends in the Vertical Distribution of Ozone. Science, 1999, 285, 1689-1692.	12.6	96
15	Trends in Stratospheric Ozone: Lessons Learned from a 3D Chemical Transport Model. Journals of the Atmospheric Sciences, 2006, 63, 1028-1041.	1.7	93
16	Comparison of model results transporting the odd nitrogen family with results transporting separate odd nitrogen species. Journal of Geophysical Research, 1989, 94, 9862-9872.	3.3	83
17	The Response of Ozone and Nitrogen Dioxide to the Eruption of Mt. Pinatubo at Southern and Northern Midlatitudes. Journals of the Atmospheric Sciences, 2013, 70, 894-900.	1.7	81
18	Dispersion of the volcanic sulfate cloud from a Mount Pinatuboâ€“like eruption. Journal of Geophysical Research, 2012, 117, .	3.3	77

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19	On the influence of anthropogenic forcings on changes in the stratospheric mean age. Journal of Geophysical Research, 2009, 114, .	3.3	75
20	Simulation of stratospheric tracers using an improved empirically based two-dimensional model transport formulation. Journal of Geophysical Research, 1999, 104, 23911-23934.	3.3	74
21	The ozone layer: the road not taken. Nature, 1996, 381, 551-554.	27.8	64
22	Radicals and reservoirs in the GMI chemistry and transport model: Comparison to measurements. Journal of Geophysical Research, 2004, 109, .	3.3	59
23	Twoâ€dimensional monthly average ozone balance from limb infrared monitor of the stratosphere and stratospheric and mesospheric sounder data. Journal of Geophysical Research, 1986, 91, 1103-1116.	3.3	55
24	Relative Contribution of Greenhouse Gases and Ozone-Depleting Substances to Temperature Trends in the Stratosphere: A Chemistryâ€“Climate Model Study. Journal of Climate, 2010, 23, 28-42.	3.2	52
25	Understanding the Changes of Stratospheric Water Vapor in Coupled Chemistryâ€“Climate Model Simulations. Journals of the Atmospheric Sciences, 2008, 65, 3278-3291.	1.7	51
26	Terrestrial Ozone Depletion due to a Milky Way Gamma-Ray Burst. Astrophysical Journal, 2005, 622, L153-L156.	4.5	49
27	The Ozone Hole of 2002 as Measured by TOMS. Journals of the Atmospheric Sciences, 2005, 62, 716-720.	1.7	49
28	Contribution of stratospheric ozone to the interannual variability of tropospheric ozone in the northern extratropics. Journal of Geophysical Research, 2008, 113, .	3.3	49
29	The 1988 Antarctic ozone depletion: Comparison with previous year depletions. Geophysical Research Letters, 1989, 16, 377-380.	4.0	48
30	Twoâ€dimensional model calculation of fluorineâ€containing reservoir species in the stratosphere. Journal of Geophysical Research, 1991, 96, 12865-12881.	3.3	45
31	Interpretation of ozone temperature correlations: 2. Analysis of SBUV ozone data. Journal of Geophysical Research, 1985, 90, 10693-10708.	3.3	44
32	Episodic total ozone minima and associated effects on heterogeneous chemistry and lower stratospheric transport. Journal of Geophysical Research, 1992, 97, 7979-7996.	3.3	42
33	the 1989 Antarctic Ozone Hole as observed by TOMS. Geophysical Research Letters, 1990, 17, 1267-1270.	4.0	37
34	Upper-stratospheric ozone trends 1979-1998. Journal of Geophysical Research, 2000, 105, 14625-14636.	3.3	37
35	Heterogeneous conversion of N₂O₅ TO HNO₃ on background stratospheric aerosols: Comparisons of model results with data. Geophysical Research Letters, 1992, 19, 397-400.	4.0	36
36	Interpretation of NO_x/NO_y observations from AASEâ€II using a model of chemistry along trajectories. Geophysical Research Letters, 1993, 20, 2507-2510.	4.0	35

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37	The 1987 Antarctic Ozone Hole: A new record low. Geophysical Research Letters, 1988, 15, 1365-1368.	4.0	34
38	The evolution of CLO and NO along air parcel trajectories. Geophysical Research Letters, 1993, 20, 2511-2514.	4.0	32
39	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.	3.3	30
40	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
41	Further interpretation of satellite measurements of Antarctic total ozone. Geophysical Research Letters, 1986, 13, 1210-1212.	4.0	28
42	Global threeâ€dimensional constituent fields derived from profile data. Geophysical Research Letters, 1990, 17, 525-528.	4.0	28
43	Evaluation of emissions and transport of CFCs using surface observations and their seasonal cycles and the GEOS CCM simulation with emissionsâ€based forcing. Journal of Geophysical Research, 2008, 113, .	3.3	28
44	Impact of future nitrous oxide and carbon dioxide emissions on the stratospheric ozone layer. Environmental Research Letters, 2015, 10, 034011.	5.2	28
45	MLS CLO observations and Arctic polar vortex temperatures. Geophysical Research Letters, 1993, 20, 2861-2864.	4.0	25
46	Version 8 SBUV ozone profile trends compared with trends from a zonally averaged chemical model. Journal of Geophysical Research, 2005, 110, .	3.3	25
47	Sensitivity of polar stratospheric ozone loss to uncertainties in chemical reaction kinetics. Atmospheric Chemistry and Physics, 2009, 9, 8651-8660.	4.9	25
48	Ozone temperature correlations in the upper stratosphere as a measure of chlorine content. Journal of Geophysical Research, 2012, 117, .	3.3	23
49	Estimating uncertainties in the SBUV Version 8.6 merged profile ozone data set. Atmospheric Chemistry and Physics, 2017, 17, 14695-14707.	4.9	23
50	The sensitivity of total ozone and ozone perturbation scenarios in a twoâ€dimensional model due to dynamical inputs. Journal of Geophysical Research, 1989, 94, 9873-9887.	3.3	22
51	The 1990 Antarctic Ozone Hole as observed by TOMS. Geophysical Research Letters, 1991, 18, 661-664.	4.0	22
52	Photoelectrons and electron temperatures in the Venus ionosphere. Journal of Geophysical Research, 1978, 83, 2057-2065.	3.3	20
53	Possible effects of volcanic eruptions on stratospheric minor constituent chemistry. Pure and Applied Geophysics, 1979, 117, 486-497.	1.9	20
54	The influlence of polar heterogeneous processes on reactive chlorine at middle latitudes: Three dimensional model implications. Geophysical Research Letters, 1991, 18, 25-28.	4.0	20

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55	Formation of the 1988 Antarctic ozone hole. Geophysical Research Letters, 1989, 16, 381-384.	4.0	19
56	Impact of heterogeneous reactions on stratospheric chemistry of the Arctic. Geophysical Research Letters, 1989, 16, 131-134.	4.0	18
57	Three dimensional simulation of hydrogen chloride and hydrogen fluoride during the Airborne Arctic Stratospheric Expedition. Geophysical Research Letters, 1990, 17, 529-532.	4.0	18
58	Development of the Antarctic ozone hole. Journal of Geophysical Research, 1996, 101, 20909-20924.	3.3	18
59	The 1991 Antarctic Ozone Hole; TOMS observations. Geophysical Research Letters, 1992, 19, 1215-1218.	4.0	16
60	Spatial and temporal variability of the extent of chemically processed stratospheric air. Geophysical Research Letters, 1991, 18, 29-32.	4.0	15
61	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, .	4.0	15
62	Comparison of stratospheric ozone destruction by fluorocarbons 11, 12, 21, and 22. Geophysical Research Letters, 1976, 3, 603-606.	4.0	14
63	Sensitivity of tracers and a stratospheric aircraft perturbation to two-dimensional model transport variations. Journal of Geophysical Research, 2001, 106, 14245-14263.	3.3	14
64	Impact of interannual variability (1979â€“1986) of transport and temperature on ozone as computed using a twoâ€dimensional photochemical model. Journal of Geophysical Research, 1991, 96, 5073-5079.	3.3	13
65	Observations of â€œHysteresisâ€• in Backscattered Ultraviolet Ozone Data. Journal of Atmospheric and Oceanic Technology, 2001, 18, 914-924.	1.3	13
66	Fall vortex ozone as a predictor of springtime total ozone at high northern latitudes. Atmospheric Chemistry and Physics, 2005, 5, 1655-1663.	4.9	13
67	Relationships between the Brewerâ€Dobson circulation and the southern annular mode during austral summer in coupled chemistryâ€climate model simulations. Journal of Geophysical Research, 2010, 115, .	3.3	13
68	History of the Study of Atmospheric Ozone. Ozone: Science and Engineering, 2001, 23, 421-428.	2.5	12
69	Total ozone during the 88â€89 Northern Hemisphere winter. Geophysical Research Letters, 1990, 17, 317-320.	4.0	10
70	Atmospheric chemistry A bad winter for Arctic ozone. Nature, 1997, 389, 788-789.	27.8	10
71	Multi-decadal records of stratospheric composition and their relationship to stratospheric circulation change. Atmospheric Chemistry and Physics, 2017, 17, 12081-12096.	4.9	9
72	Using satellite measurements of N₂O to remove dynamical variability from HCl measurements. Atmospheric Chemistry and Physics, 2018, 18, 5691-5697.	4.9	9

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73	Reply to Elliott and Rowland. Geophysical Research Letters, 1988, 15, 198-199.	4.0	5
74	Monitoring Stratospheric Ozone From Space. , 1993, , 319-346.		5
75	The use of atmospheric measurements to constrain model predictions of ozone change from chlorine perturbations. Journal of Geophysical Research, 1987, 92, 6662-6674.	3.3	4
76	Observation of Global Stratospheric Ozone Change. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1992, 96, 257-263.	0.9	4
77	Estimating When the Antarctic Ozone Hole will Recover. , 2009, , 191-200.		4
78	Diagnostic analysis of two-dimensional monthly average ozone balance with Chapman chemistry. Journal of Atmospheric and Solar-Terrestrial Physics, 1986, 48, 1145-1151.	0.9	1
79	On detecting a trend in the residual circulation from observations of column HCl. Geophysical Research Letters, 2006, 33, .	4.0	1
80	Athens Statement. , 2009, , 461-464.		0
81	Ozone Trends from Satellite Data. , 1995, , 397-410.		0