Peter von der Gathen

List of Publications by Year
in descending order

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71 papers	4,175 citations	109321 35 h-index	128289 60 g-index
80 all docs	80 docs citations	80 times ranked	2833 citing authors

#	Article	IF	Citations
1	Overview of the MOSAiC expedition: Atmosphere. Elementa, 2022, 10, .	3.2	121
2	COVIDâ€19 Crisis Reduces Free Tropospheric Ozone Across the Northern Hemisphere. Geophysical Research Letters, 2021, 48, e2020GL091987.	4.0	51
3	The Increasing Surface Ozone and Tropospheric Ozone in Antarctica and Their Possible Drivers. Environmental Science & Technology, 2021, 55, 8542-8553.	10.0	15
4	Climate change favours large seasonal loss of Arctic ozone. Nature Communications, 2021, 12, 3886.	12.8	44
5	Chemical Evolution of the Exceptional Arctic Stratospheric Winter 2019/2020 Compared to Previous Arctic and Antarctic Winters. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034356.	3.3	8
6	Nearâ€Complete Local Reduction of Arctic Stratospheric Ozone by Severe Chemical Loss in Spring 2020. Geophysical Research Letters, 2020, 47, e2020GL089547.	4.0	75
7	Ozonesonde Quality Assurance: The JOSIEâ€“SHADOZ (2017) Experience. Bulletin of the American Meteorological Society, 2019, 100, 155-171.	3.3	23
8	Northern Hemisphere Stratospheric Ozone Depletion Caused by Solar Proton Events: The Role of the Polar Vortex. Geophysical Research Letters, 2018, 45, 2115-2124.	4.0	13
9	Validation of 10-year SAO OMI Ozone Profile (PROFOZ) product using ozonesonde observations. Atmospheric Measurement Techniques, 2017, 10, 2455-2475.	3.1	53
10	Ground-based assessment of the bias and long-term stability of 14 limb and occultation ozone profile data records. Atmospheric Measurement Techniques, 2016, 9, 2497-2534.	3.1	92
11	Ground-based assessment of the bias and long-term stability of fourteen limb and occultation ozone profile data records. , 2016, 9, 2497-2534.		9
12	Reconciliation of essential process parameters for an enhanced predictability of Arctic stratospheric ozone loss and its climate interactions (RECONCILE): activities and results. Atmospheric Chemistry and Physics, 2013, 13, 9233-9268.	4.9	88
13	Impacts of midlatitude precursor emissions and local photochemistry on ozone abundances in the Arctic. Journal of Geophysical Research, 2012, 117, .	3.3	55
14	Unprecedented Arctic ozone loss in 2011. Nature, 2011, 478, 469-475.	27.8	572
15	Strategic ozone sounding networks: Review of design and accomplishments. Atmospheric Environment, 2011, 45, 2145-2163.	4.1	63
16	Study of the seasonal ozone variations at European high latitudes. Advances in Space Research, 2011, 47, 740-747.	2.6	2
17	A closer look at Arctic ozone loss and polar stratospheric clouds. Atmospheric Chemistry and Physics, 2010, 10, 8499-8510.	4.9	50
18	A multi-model analysis of vertical ozone profiles. Atmospheric Chemistry and Physics, 2010, 10, 5759-5783.	4.9	70

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19	Global validation of ENVISAT ozone profiles using lidar measurements. International Journal of Remote Sensing, 2009, 30, 3987-3994.	2.9	6
20	Understanding the relation between Arctic ozone loss and the volume of polar stratospheric clouds. International Journal of Remote Sensing, 2009, 30, 4065-4070.	2.9	5
21	Validation of ozone measurements from the Atmospheric Chemistry Experiment (ACE). Atmospheric Chemistry and Physics, 2009, 9, 287-343.	4.9	134
22	Bias determination and precision validation of ozone profiles from MIPAS-Envisat retrieved with the IMK-IAA processor. Atmospheric Chemistry and Physics, 2007, 7, 3639-3662.	4.9	49
23	Mid-winter lower stratosphere temperatures in the Antarctic vortex: comparison between observations and ECMWF and NCEP operational models. Atmospheric Chemistry and Physics, 2007, 7, 435-441.	4.9	25
24	Large chemical ozone loss in 2004/2005 Arctic winter/spring. Geophysical Research Letters, 2007, 34, .	4.0	50
25	Ozonesonde observations in the Arctic during 1989â€“2003: Ozone variability and trends in the lower stratosphere and free troposphere. Journal of Geophysical Research, 2007, 112, .	3.3	45
26	Comparison of polar ozone loss rates simulated by one-dimensional and three-dimensional models with Match observations in recent Antarctic and Arctic winters. Journal of Geophysical Research, 2007, 112, .	3.3	20
27	A trajectoryâ€based estimate of the tropospheric ozone column using the residual method. Journal of Geophysical Research, 2007, 112, .	3.3	93
28	Validation of Aura Microwave Limb Sounder Ozone by ozonesonde and lidar measurements. Journal of Geophysical Research, 2007, 112, .	3.3	133
29	Ozone profiles in the high-latitude stratosphere and lower mesosphere measured by the Improved Limb Atmospheric Spectrometer (ILAS)-II: Comparison with other satellite sensors and ozonesondes. Journal of Geophysical Research, 2006, 111, .	3.3	24
30	Arctic winter 2005: Implications for stratospheric ozone loss and climate change. Geophysical Research Letters, 2006, 33, .	4.0	151
31	Large decadal scale changes of polar ozone suggest solar influence. Atmospheric Chemistry and Physics, 2006, 6, 1835-1841.	4.9	33
32	Chemical ozone loss in the Arctic winter 2002/2003 determined with Match. Atmospheric Chemistry and Physics, 2006, 6, 2783-2792.	4.9	28
33	High resolution simulation of recent Arctic and Antarctic stratospheric chemical ozone loss compared to observations. Journal of Atmospheric Chemistry, 2006, 55, 205-226.	3.2	19
34	Three-dimensional model study of the Arctic ozone loss in 2002/2003 and comparison with 1999/2000 and 2003/2004. Atmospheric Chemistry and Physics, 2005, 5, 139-152.	4.9	62
35	Vortex-averaged Arctic ozone depletion in the winter 2002/2003. Atmospheric Chemistry and Physics, 2005, 5, 131-138.	4.9	27
36	Statistical analysis of the precision of the Match method. Atmospheric Chemistry and Physics, 2005, 5, 2713-2727.	4.9	13

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37	Climatology of ozone in the troposphere and lower stratosphere over the European Arctic. Advances in Space Research, 2004, 34, 754-758.	2.6	8
38	Climatology of ozone in the troposphere and lower stratosphere over the European Arctic. Advances in Space Research, 2004, 34, 754-754.	2.6	3
39	Arctic ozone loss and climate change. Geophysical Research Letters, 2004, 31, .	4.0	284
40	Pole-to-pole validation of Envisat GOMOS ozone profiles using data from ground-based and balloon sonde measurements. Journal of Geophysical Research, 2004, 109, .	3.3	56
41	Non-coincident inter-instrument comparisons of ozone measurements using quasi-conservative coordinates. Atmospheric Chemistry and Physics, 2004, 4, 2345-2352.	4.9	8
42	Summertime low-ozone episodes at northern high latitudes. Quarterly Journal of the Royal Meteorological Society, 2003, 129, 3265-3275.	2.7	22
43	Estimation of Arctic polar vortex ozone loss during the winter of 1999â€“2000 using vortex-averaged airborne differential absorption lidar ozone measurements referenced to N2O isopleths. Journal of Geophysical Research, 2003, 108, .	3.3	4
44	Climatology of UTLS ozone and the ratio of ozone and potential vorticity over northern Europe. Journal of Geophysical Research, 2003, 108, .	3.3	25
45	Generation of layering in the upper arctic troposphere away from the jet stream. Annales Geophysicae, 2003, 21, 1653-1665.	1.6	0
46	An assessment of the ozone loss during the 1999â€“2000 SOLVE/THESEO 2000 Arctic campaign. Journal of Geophysical Research, 2002, 107, SOL 3-1.	3.3	22
47	Modeling the effect of denitrification on Arctic ozone depletion during winter 1999/2000. Journal of Geophysical Research, 2002, 107, SOL 65-1-SOL 65-18.	3.3	42
48	Reconstruction of three-dimensional ozone fields using POAM III during SOLVE. Journal of Geophysical Research, 2002, 107, SOL 42-1.	3.3	29
49	Comparison of empirically derived ozone losses in the Arctic vortex. Journal of Geophysical Research, 2002, 107, SOL 7-1.	3.3	56
50	Chemical depletion of Arctic ozone in winter 1999/2000. Journal of Geophysical Research, 2002, 107, SOL 18-1.	3.3	95
51	Ozone loss from quasi-conservative coordinate mapping during the 1999â€“2000 SOLVE/THESEO 2000 campaigns. Journal of Geophysical Research, 2002, 107, SOL 16-1.	3.3	9
52	Arctic ozone loss in threshold conditions: Match observations in 1997/1998 and 1998/1999. Journal of Geophysical Research, 2001, 106, 7495-7503.	3.3	66
53	Arctic and Antarctic ozone layer observations: chemical and dynamical aspects of variability and long-term changes in the polar stratosphere. Polar Research, 2000, 19, 193-204.	1.6	14
54	Match observations in the Arctic winter 1996/97: High stratospheric ozone loss rates correlate with low temperatures deep inside the polar vortex. Geophysical Research Letters, 2000, 27, 205-208.	4.0	62

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55	Large loss of total ozone during the Arctic winter of 1999/2000. Geophysical Research Letters, 2000, 27, 3473-3476.	4.0	73
56	Arctic and Antarctic ozone layer observations: chemical and dynamical aspects of variability and long-term changes in the polar stratosphere. Polar Research, 2000, 19, 193-204.	1.6	10
57	Chemical Ozone Loss in the Arctic Winter 1994/95 as Determined by the Match Technique. Journal of Atmospheric Chemistry, 1999, 32, 35-59.	3.2	90
58	Results of the 1998 Ny-Ã…lesund Ozone Monitoring Intercomparison. Journal of Geophysical Research, 1999, 104, 30515-30523.	3.3	17
59	Ozone differential absorption lidar algorithm intercomparison. Applied Optics, 1999, 38, 6225.	2.1	71
60	Title is missing!. Journal of Atmospheric Chemistry, 1998, 30, 187-207.	3.2	64
61	In situ measurements of stratospheric ozone depletion rates in the Arctic winter 1991/1992: A Lagrangian approach. Journal of Geophysical Research, 1998, 103, 5843-5853.	3.3	102
62	The evolution of polar stratospheric clouds above spitsbergen. Journal of Aerosol Science, 1997, 28, S423-S424.	3.8	2
63	Prolonged stratospheric ozone loss in the 1995â€“96 Arctic winter. Nature, 1997, 389, 835-838.	27.8	216
64	Ozone change in the polar atmosphere. , 1997, , 73-100.		0
65	Observational evidence for chemical ozone depletion over the Arctic in winter 1991â€“92. Nature, 1995, 375, 131-134.	27.8	178
66	Aerosol extinction and backscatter profiles by means of a multiwavelength Raman lidar: a new method without a priori assumptions. Applied Optics, 1995, 34, 463.	2.1	3
67	Heterogeneous conversion of HCl and ClONO2during the Arctic winter 1992/1993 initiating ozone depletion. Journal of Geophysical Research, 1995, 100, 11269.	3.3	21
68	Stratospheric Ozone Variability over Spitsbergen in March - April 1991. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1992, 96, 277-280.	0.9	0
69	Saturation effects in Na lidar temperature measurements. Journal of Geophysical Research, 1991, 96, 3679-3690.	3.3	12
70	Altitude and temperature of the mesopause at 69Â°N latitude in winter. Journal of Geophysical Research, 1988, 93, 11093-11101.	3.3	56
71	Forced release of sodium from upper atmospheric dust particles. Geophysical Research Letters, 1987, 14, 76-79.	4.0	120