Gerald Wetzel

List of Publications by Year
in descending order

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60	1,765	304368	329751
papers	citations	22 h-index	37 g-index

69	69	69	1204
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Arctic Ozone Loss Due to Denitrification. Science, 1999, 283, 2064-2069.	6.0	214
2	Geophysical validation of MIPAS-ENVISAT operational ozone data. Atmospheric Chemistry and Physics, 2007, 7, 4807-4867.	1.9	130
3	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.	1.9	88
4	Validation of MIPAS ClONO₂ measurements. Atmospheric Chemistry and Physics, 2007, 7, 257-281.	1.9	65
5	Observation of mesospheric air inside the arctic stratospheric polar vortex in early 2003. Atmospheric Chemistry and Physics, 2006, 6, 267-282.	1.9	64
6	Evidence of scattering of tropospheric radiation by PSCs in mid-IR limb emission spectra: MIPAS-B observations and KOPRA simulations. Geophysical Research Letters, 2002, 29, 119-1-119-4.	1.5	62
7	Validation of MIPAS-ENVISAT NO₂ operational data. Atmospheric Chemistry and Physics, 2007, 7, 3261-3284.	1.9	57
8	First detection of ammonia (NH₃) in the Asian summer monsoon upper troposphere. Atmospheric Chemistry and Physics, 2016, 16, 14357-14369.	1.9	51
9	Validation of version-4.61 methane and nitrous oxide observed by MIPAS. Atmospheric Chemistry and Physics, 2009, 9, 413-442.	1.9	50
10	NOypartitioning and budget and its correlation with N2O in the Arctic vortex and in summer midlatitudes in 1997. Journal of Geophysical Research, 2002, 107, ACH 3-1.	3.3	49
11	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.	1.9	49
12	Validation of MIPAS HNO₃ operational data. Atmospheric Chemistry and Physics, 2007, 7, 4905-4934.	1.9	48
13	Geophysical validation of temperature retrieved by the ESA processor from MIPAS/ENVISAT atmospheric limb-emission measurements. Atmospheric Chemistry and Physics, 2007, 7, 4459-4487.	1.9	46
14	Denitrification observed inside the Arctic vortex in February 1995. Journal of Geophysical Research, 1998, 103, 16221-16233.	3.3	44
15	Ozone loss driven by nitrogen oxides and triggered by stratospheric warmings can outweigh the effect of halogens. Journal of Geophysical Research, 2007, 112, .	3.3	38
16	ClONO2vertical profile and estimated mixing ratios of ClO and HOCl in winter Arctic stratosphere from Michelson interferometer for passive atmospheric sounding limb emission spectra. Journal of Geophysical Research, 1997, 102, 16157-16168.	3.3	36
17	Simultaneous measurements of HDO, H2O, and CH4with MIPAS-B: Hydrogen budget and indication of dehydration inside the polar vortex. Journal of Geophysical Research, 1999, 104, 19213-19225.	3.3	33
18	First remote sensing measurements of ClOOCl along with ClO and ClONO₂ in activated and deactivated Arctic vortex conditions using new ClOOCl IR absorption cross sections. Atmospheric Chemistry and Physics, 2010, 10, 931-945.	1.9	33

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19	A comparison of Arctic HNO3profiles measured by the Improved Limb Atmospheric Spectrometer and balloon-borne sensors. Journal of Geophysical Research, 2000, 105, 6761-6771.	3.3	32
20	Intercomparison and validation of ILAS-II version 1.4 target parameters with MIPAS-B measurements. Journal of Geophysical Research, 2006, 111, .	3.3	32
21	Validation of GOMOSâ€Envisat vertical profiles of O₃, NO₂, NO₃, and aerosol extinction using balloonâ€borne instruments and analysis of the retrievals. Journal of Geophysical Research, 2008, 113, .	3.3	32
22	Diurnal variations of reactive chlorine and nitrogen oxides observed by MIPAS-B inside the January 2010 Arctic vortex. Atmospheric Chemistry and Physics, 2012, 12, 6581-6592.	1.9	32
23	Validation of nitric acid retrieved by the IMK-IAA processor from MIPAS/ENVISAT measurements. Atmospheric Chemistry and Physics, 2007, 7, 721-738.	1.9	31
24	Validation of NO2and HNO3measurements from the Improved Limb Atmospheric Spectrometer (ILAS) with the version 5.20 retrieval algorithm. Journal of Geophysical Research, 2002, 107, ILS 3-1.	3.3	29
25	Validation of water vapour profiles (version 13) retrieved by the IMK/IAA scientific retrieval processor based on full resolution spectra measured by MIPAS on board Envisat. Atmospheric Measurement Techniques, 2009, 2, 379-399.	1.2	28
26	Validation of stratospheric nitric acid profiles observed by Improved Limb Atmospheric Spectrometer (ILAS)â€“II. Journal of Geophysical Research, 2006, 111, .	3.3	24
27	Vertical profiles of N2O5, HO2NO2, and NO2inside the Arctic vortex, retrieved from nocturnal MIPAS-B2 infrared limb emission measurements in February 1995. Journal of Geophysical Research, 1997, 102, 19177-19186.	3.3	22
28	Comment on â€œOrigin of the Januaryâ€“April 2004 increase in stratospheric NO2observed in northern polar latitudesâ€•by Jean-Baptiste Renard et al.. Geophysical Research Letters, 2007, 34, .	1.5	22
29	Validation and data characteristics of nitrous oxide and methane profiles observed by the Improved Limb Atmospheric Spectrometer (ILAS) and processed with the Version 5.20 algorithm. Journal of Geophysical Research, 2003, 108, .	3.3	21
30	3-D microphysical model studies of Arctic denitrification: comparison with observations. Atmospheric Chemistry and Physics, 2005, 5, 3093-3109.	1.9	21
31	Vertical profiles of N2O5along with CH4, N2O, and H2O in the late Arctic winter retrieved from MIPAS-B infrared limb emission measurements. Journal of Geophysical Research, 1995, 100, 23173.	3.3	19
32	A characterization of the warm 1999 Arctic winter by observations and modeling: NOypartitioning and dynamics. Journal of Geophysical Research, 2002, 107, ACH 4-1.	3.3	18
33	Impact of mesospheric intrusions on ozoneâ€tracer relations in the stratospheric polar vortex. Journal of Geophysical Research, 2007, 112, .	3.3	18
34	Validation of CFC-12 measurements from the Improved Limb Atmospheric Spectrometer (ILAS) with the version 6.0 retrieval algorithm. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	17
35	Measurements of ClONO2by the Improved Limb Atmospheric Spectrometer (ILAS) in high-latitude stratosphere: New products using version 6.1 data processing algorithm. Journal of Geophysical Research, 2006, 111, .	3.3	17
36	Validation of MIPAS-ENVISAT H₂O operational data collected between July 2002 and March 2004. Atmospheric Chemistry and Physics, 2013, 13, 5791-5811.	1.9	17

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37	Remote sensing of trace gases in the midinfrared spectral region from a nadir view. Applied Optics, 1995, 34, 467.	2.1	15
38	MIPAS IMK/IAA CFC-11 (CCl₃F) and CFC-12 (CCl₂F₂) measurements: accuracy, precision and long-term stability. Atmospheric Measurement Techniques, 2016, 9, 3355-3389.	1.2	15
39	Validation of the Improved Limb Atmospheric Spectrometer-II (ILAS-II) Version 1.4 nitrous oxide and methane profiles. Journal of Geophysical Research, 2006, 111, .	3.3	14
40	Partitioning and budget of inorganic and organic chlorine species observed by MIPAS-B and TELIS in the Arctic in March 2011. Atmospheric Chemistry and Physics, 2015, 15, 8065-8076.	1.9	13
41	Effect of near-IR photolysis of HO2NO2on stratospheric chemistry. Geophysical Research Letters, 2003, 30, n/a-n/a.	1.5	12
42	Technical Note: Intercomparison of ILAS-II version 2 and 1.4 trace species with MIPAS-B measurements. Atmospheric Chemistry and Physics, 2008, 8, 1119-1126.	1.9	12
43	Comparison of SMILES ClO profiles with satellite, balloon-borne and ground-based measurements. Atmospheric Measurement Techniques, 2013, 6, 3325-3347.	1.2	11
44	Spatio-temporal variations of NO_y species in the northern latitudes stratosphere measured with the balloon-borne MIPAS instrument. Atmospheric Chemistry and Physics, 2009, 9, 1151-1163.	1.9	10
45	Differences in ozone retrieval in MIPAS channels A and AB: a spectroscopic issue. Atmospheric Measurement Techniques, 2018, 11, 4707-4723.	1.2	10
46	CCl₄ distribution derived from MIPAS ESA v7 data: intercomparisons, trend, and lifetime estimation. Atmospheric Chemistry and Physics, 2017, 17, 10143-10162.	1.9	8
47	Pollution trace gas distributions and their transport in the Asian monsoon upper troposphere and lowermost stratosphere during the StratoClim campaign 2017. Atmospheric Chemistry and Physics, 2020, 20, 14695-14715.	1.9	8
48	The variation of short-lived NOyspecies around sunrise at mid-latitudes as measured by MIPAS-B and calculated by KASIMA. Geophysical Research Letters, 2003, 30, .	1.5	6
49	Pollution trace gases C₂H₆, C₂H₂, HCOOH, and PAN in the North Atlantic UTLS: observations and simulations. Atmospheric Chemistry and Physics, 2021, 21, 8213-8232.	1.9	6
50	Long-term intercomparison of MIPAS additional species ClONO2, N2O5, CFC-11, and CFC-12 with MIPAS-B measurements. Annals of Geophysics, 2014, , .	0.5	6
51	Constraining the N₂O₅ UV absorption cross section from spectroscopic trace gas measurements in the tropical mid-stratosphere. Atmospheric Chemistry and Physics, 2014, 14, 9555-9566.	1.9	4
52	Validation of atmospheric chemistry measurements from MIPAS, SCIAMACHY, GOMOS onboard ENVISAT by observations of balloon-borne MIPAS-B. Science China Earth Sciences, 2010, 53, 1533-1541.	2.3	3
53	Diurnal variations of BrONO₂ observed by MIPAS-B at midlatitudes and in the Arctic. Atmospheric Chemistry and Physics, 2017, 17, 14631-14643.	1.9	3
54	Biomass burning pollution in the South Atlantic upper troposphere: GLORIA trace gas observations and evaluation of the CAMS model. Atmospheric Chemistry and Physics, 2022, 22, 3675-3691.	1.9	3

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55	Validation of temperature measurements from MIPAS-ENVISAT with balloon observations obtained by MIPAS-B. Journal of Atmospheric and Solar-Terrestrial Physics, 2010, 72, 837-847.	0.6	2
56	MIPAS IMK/IAA carbon tetrachloride (CCl₄) retrieval and first comparison with other instruments. Atmospheric Measurement Techniques, 2017, 10, 2727-2743.	1.2	2
57	Performance Assessment of Balloon-Borne Trace Gas Sounding with the Terahertz Channel of TELIS. Remote Sensing, 2018, 10, 315.	1.8	2
58	Phosgene distribution derived from MIPAS ESA v8 data: intercomparisons and trends. Atmospheric Measurement Techniques, 2021, 14, 7959-7974.	1.2	2
59	Retrieval of Water Vapour Profiles from GLORIA Nadir Observations. Remote Sensing, 2021, 13, 3675.	1.8	1
60	The Michelson Interferometer for Passive Atmospheric Sounding global climatology of BrONO₂ 2002â€“2012: a test for stratospheric bromine chemistry. Atmospheric Chemistry and Physics, 2021, 21, 18433-18464.	1.9	1