Michael HÃ¶pfner

List of Publications by Year
in descending order

177 papers	6,786 citations	66343 42 h-index	118850 62 g-index
279 all docs	279 docs citations	279 times ranked	3076 citing authors

#	Article	IF	Citations
1	Intercomparison of retrieval codes used for the analysis of high-resolution, ground-based FTIR measurements. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 87, 25-52.	2.3	315
2	Retrieval of temperature and tangent altitude pointing from limb emission spectra recorded from space by the Michelson Interferometer for Passive Atmospheric Sounding (MIPAS). Journal of Geophysical Research, 2003, 108, .	3.3	242
3	Retrieval of temperature, H₂O, O₃, HNO₃, CH₄, N₂O, ClONO₂ and ClO from MIPAS reduced resolution nominal mode limb emission measurements. Atmospheric Measurement Techniques, 2009, 2, 159-175.	3.1	215
4	Optimized forward model and retrieval scheme for MIPAS near-real-time data processing. Applied Optics, 2000, 39, 1323.	2.1	188
5	MIPAS level 2 operational analysis. Atmospheric Chemistry and Physics, 2006, 6, 5605-5630.	4.9	174
6	Sensitivity of trace gas abundances retrievals from infrared limb emission spectra to simplifying approximations in radiative transfer modelling. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 72, 249-280.	2.3	148
7	Validation of ozone measurements from the Atmospheric Chemistry Experiment (ACE). Atmospheric Chemistry and Physics, 2009, 9, 287-343.	4.9	134
8	Observation of NOxenhancement and ozone depletion in the Northern and Southern Hemispheres after the October-November 2003 solar proton events. Journal of Geophysical Research, 2005, 110, .	3.3	132
9	CO measurements from the ACE-FTS satellite instrument: data analysis and validation using ground-based, airborne and spaceborne observations. Atmospheric Chemistry and Physics, 2008, 8, 2569-2594.	4.9	107
10	Global distribution of mean age of stratospheric air from MIPAS SF₆ measurements. Atmospheric Chemistry and Physics, 2008, 8, 677-695.	4.9	105
11	MIPAS detects Antarctic stratospheric belt of NAT PSCs caused by mountain waves. Atmospheric Chemistry and Physics, 2006, 6, 1221-1230.	4.9	102
12	Satellite observation of lowermost tropospheric ozone by multispectral synergism of IASI thermal infrared and GOME-2 ultraviolet measurements over Europe. Atmospheric Chemistry and Physics, 2013, 13, 9675-9693.	4.9	97
13	Ammonium nitrate particles formed in upper troposphere from ground ammonia sources during Asian monsoons. Nature Geoscience, 2019, 12, 608-612.	12.9	95
14	Gimballed Limb Observer for Radiance Imaging of the Atmosphere (GLORIA) scientific objectives. Atmospheric Measurement Techniques, 2014, 7, 1915-1928.	3.1	85
15	Retrieval of stratospheric NOxfrom 5.3 and 6.2 Î¼m nonlocal thermodynamic equilibrium emissions measured by Michelson Interferometer for Passive Atmospheric Sounding (MIPAS) on Envisat. Journal of Geophysical Research, 2005, 110, .	3.3	84
16	Spectroscopic evidence for NAT, STS, and ice in MIPAS infrared limb emission measurements of polar stratospheric clouds. Atmospheric Chemistry and Physics, 2006, 6, 1201-1219.	4.9	82
17	Instrument concept of the imaging Fourier transform spectrometer GLORIA. Atmospheric Measurement Techniques, 2014, 7, 3565-3577.	3.1	82
18	Global peroxyacetyl nitrate (PAN) retrieval in the upper troposphere from limb emission spectra of the Michelson Interferometer for Passive Atmospheric Sounding (MIPAS). Atmospheric Chemistry and Physics, 2007, 7, 2775-2787.	4.9	77

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19	Carbon monoxide distributions from the upper troposphere to the mesosphere inferred from 4.7 Î¼m non-local thermal equilibrium emissions measured by MIPAS on Envisat. Atmospheric Chemistry and Physics, 2009, 9, 2387-2411.	4.9	77
20	Validation of ACE-FTS N₂O measurements. Atmospheric Chemistry and Physics, 2008, 8, 4759-4786.	4.9	76
21	Validation of HNO₃, ClONO₂, and N₂O₅ from the Atmospheric Chemistry Experiment Fourier Transform Spectrometer (ACE-FTS). Atmospheric Chemistry and Physics, 2008, 8, 2529-2563.	4.9	75
22	Mixing Processes during the Antarctic Vortex Split in Septemberâ€“October 2002 as Inferred from Source Gas and Ozone Distributions from ENVISATâ€“MIPAS. Journals of the Atmospheric Sciences, 2005, 62, 787-800.	1.7	74
23	HNO3, N2O5, and ClONO2enhancements after the October-November 2003 solar proton events. Journal of Geophysical Research, 2005, 110, .	3.3	69
24	GLObal limb Radiance Imager for the Atmosphere (GLORIA): Scientific objectives. Advances in Space Research, 2005, 36, 989-995.	2.6	68
25	Validation of MIPAS ClONO₂ measurements. Atmospheric Chemistry and Physics, 2007, 7, 257-281.	4.9	65
26	Validation of NO₂ and NO from the Atmospheric Chemistry Experiment (ACE). Atmospheric Chemistry and Physics, 2008, 8, 5801-5841.	4.9	64
27	Water vapor distributions measured with the Michelson Interferometer for Passive Atmospheric Sounding on board Envisat (MIPAS/Envisat). Journal of Geophysical Research, 2005, 110, .	3.3	63
28	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.	4.0	62
29	The ISSWG line-by-line inter-comparison experiment. Journal of Quantitative Spectroscopy and Radiative Transfer, 2003, 77, 433-453.	2.3	62
30	GRANADA: A Generic RAdiative traNsfer AnD non-LTE population algorithm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1771-1817.	2.3	60
31	Stratospheric sulfur and its implications for radiative forcing simulated by the chemistry climate model EMAC. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2103-2118.	3.3	59
32	The horizontal resolution of MIPAS. Atmospheric Measurement Techniques, 2009, 2, 47-54.	3.1	58
33	HDO measurements with MIPAS. Atmospheric Chemistry and Physics, 2007, 7, 2601-2615.	4.9	56
34	Antarctic NAT PSC belt of June 2003: Observational validation of the mountain wave seeding hypothesis. Geophysical Research Letters, 2009, 36, .	4.0	56
35	Experimental evidence of perturbed odd hydrogen and chlorine chemistry after the October 2003 solar proton events. Journal of Geophysical Research, 2005, 110, .	3.3	55
36	Efficient line-by-line calculation of absorption coefficients. Journal of Quantitative Spectroscopy and Radiative Transfer, 1999, 63, 97-114.	2.3	53

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37	Tropospheric ozone from IASI: comparison of different inversion algorithms and validation with ozone sondes in the northern middle latitudes. Atmospheric Chemistry and Physics, 2009, 9, 9329-9347.	4.9	53
38	STM studies of real and quasi-perfect silver single crystal surfaces used in electrochemical experiments. Surface Science, 1991, 248, 225-233.	1.9	52
39	An enhanced HNO3second maximum in the Antarctic midwinter upper stratosphere 2003. Journal of Geophysical Research, 2005, 110, .	3.3	52
40	First results of MIPAS/ENVISAT with operational Level 2 code. Advances in Space Research, 2004, 33, 1012-1019.	2.6	51
41	First detection of ammonia (NH₃) in the Asian summer monsoon upper troposphere. Atmospheric Chemistry and Physics, 2016, 16, 14357-14369.	4.9	51
42	A new non-LTE retrieval method for atmospheric parameters from mipas-envisat emission spectra. Advances in Space Research, 2001, 27, 1099-1104.	2.6	49
43	Retrieval of stratospheric ozone profiles from MIPAS/ENVISAT limb emission spectra: a sensitivity study. Atmospheric Chemistry and Physics, 2006, 6, 2767-2781.	4.9	49
44	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
45	Global CFC-11 (CCl₃F) and CFC-12 (CCl₂F₂) measurements with the Michelson Interferometer for Passive Atmospheric Sounding (MIPAS): retrieval, climatologies and trends. Atmospheric Chemistry and Physics, 2012, 12, 11857-11875.	4.9	49
46	Polar Stratospheric Clouds: Satellite Observations, Processes, and Role in Ozone Depletion. Reviews of Geophysics, 2021, 59, e2020RG000702.	23.0	49
47	Validation of MIPAS HNO₃ operational data. Atmospheric Chemistry and Physics, 2007, 7, 4905-4934.	4.9	48
48	Global observations of thermospheric temperature and nitric oxide from MIPAS spectra at 5.3Î¼m. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	46
49	Modelling of atmospheric mid-infrared radiative transfer: the AMIL2DA algorithm intercomparison experiment. Journal of Quantitative Spectroscopy and Radiative Transfer, 2003, 78, 381-407.	2.3	45
50	Global distributions of C₂H₆, C₂H₂, HCN, and PAN retrieved from MIPAS reduced spectral resolution measurements. Atmospheric Measurement Techniques, 2012, 5, 723-734.	3.1	44
51	Tropical sources and sinks of carbonyl sulfide observed from space. Geophysical Research Letters, 2015, 42, 10,082.	4.0	44
52	Tomographic retrieval of atmospheric parameters from infrared limb emission observations. Applied Optics, 2005, 44, 3291.	2.1	43
53	Comparison between CALIPSO and MIPAS observations of polar stratospheric clouds. Journal of Geophysical Research, 2009, 114, .	3.3	43
54	Spaceborne ClO observations by the Michelson Interferometer for Passive Atmospheric Sounding (MIPAS) before and during the Antarctic major warming in September/October 2002. Journal of Geophysical Research, 2004, 109, .	3.3	41

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55	Global distribution and variability of formic acid as observed by MIPASâ€ENVISAT. Journal of Geophysical Research, 2010, 115, .	3.3	41
56	First spaceborne observations of Antarctic stratospheric ClONO2recovery: Austral spring 2002. Journal of Geophysical Research, 2004, 109, .	3.3	40
57	Study on the impact of polar stratospheric clouds on high resolution mid-IR limb emission spectra. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 83, 93-107.	2.3	39
58	Three-Dimensional Model Study of the Antarctic Ozone Hole in 2002 and Comparison with 2000. Journals of the Atmospheric Sciences, 2005, 62, 822-837.	1.7	39
59	Sulfur dioxide (SO₂) from MIPAS in the upper troposphere and lower stratosphere 2002â€“2012. Atmospheric Chemistry and Physics, 2015, 15, 7017-7037.	4.9	38
60	Retrieval of three-dimensional small-scale structures in upper-tropospheric/lower-stratospheric composition as measured by GLORIA. Atmospheric Measurement Techniques, 2015, 8, 81-95.	3.1	38
61	A climatology of polar stratospheric cloud composition between 2002 and 2012 based on MIPAS/Envisat observations. Atmospheric Chemistry and Physics, 2018, 18, 5089-5113.	4.9	38
62	Fast cloud parameter retrievals of MIPAS/Envisat. Atmospheric Chemistry and Physics, 2012, 12, 7135-7164.	4.9	37
63	A thermal infrared instrument onboard a geostationary platform for CO and O₃ measurements in the lowermost troposphere: Observing System Simulation Experiments (OSSE). Atmospheric Measurement Techniques, 2011, 4, 1637-1661.	3.1	36
64	MIPAS-STR measurements in the Arctic UTLS in winter/spring 2010: instrument characterization, retrieval and validation. Atmospheric Measurement Techniques, 2012, 5, 1205-1228.	3.1	36
65	Level 0 to 1 processing of the imaging Fourier transform spectrometer GLORIA: generation of radiometrically and spectrally calibrated spectra. Atmospheric Measurement Techniques, 2014, 7, 4167-4184.	3.1	35
66	Denitrification, dehydration and ozone loss during the 2015/2016 Arctic winter. Atmospheric Chemistry and Physics, 2017, 17, 12893-12910.	4.9	35
67	Spatial and temporal variability of ClONO2, HNO3, and O3in the Arctic winter of 1992/1993 as obtained by airborne infrared emission spectroscopy. Journal of Geophysical Research, 1995, 100, 9101.	3.3	34
68	Cross comparisons of O3 and NO2 measured by the atmospheric ENVISAT instruments GOMOS, MIPAS, and SCIAMACHY. Advances in Space Research, 2005, 36, 855-867.	2.6	34
69	Large-scale upper tropospheric pollution observed by MIPAS HCN and C₂H₆ global distributions. Atmospheric Chemistry and Physics, 2009, 9, 9619-9634.	4.9	34
70	Threeâ€dimensional distribution of a major desert dust outbreak over East Asia in March 2008 derived from IASI satellite observations. Journal of Geophysical Research D: Atmospheres, 2015, 120, 7099-7127.	3.3	34
71	The variability of ClONO2and HNO3in the Arctic polar vortex: Comparison of Transall Michelson interferometer for passive atmospheric sounding measurements and three-dimensional model results. Journal of Geophysical Research, 1995, 100, 9115.	3.3	33
72	Comparison of single and multiple scattering approaches for the simulation of limb-emission observations in the mid-IR. Journal of Quantitative Spectroscopy and Radiative Transfer, 2005, 91, 275-285.	2.3	33

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73	Ozone profiles and total column amounts derived at IzaÃ±a, Tenerife Island, from FTIR solar absorption spectra, and its validation by an intercomparison to ECC-sonde and Brewer spectrometer measurements. Journal of Quantitative Spectroscopy and Radiative Transfer, 2005, 91, 245-274.	2.3	33
74	NOyfrom Michelson Interferometer for Passive Atmospheric Sounding on Environmental Satellite during the Southern Hemisphere polar vortex split in September/October 2002. Journal of Geophysical Research, 2005, 110, .	3.3	32
75	Characterization of the surface structure of silver single crystal electrodes by ex situ and in situ STM. Surface Science, 1992, 271, 191-200.	1.9	31
76	MIPAS measurements of upper tropospheric C₂H₆ and O₃ during the southern hemispheric biomass burning season in 2003. Atmospheric Chemistry and Physics, 2007, 7, 5861-5872.	4.9	31
77	Validation of nitric acid retrieved by the IMK-IAA processor from MIPAS/ENVISAT measurements. Atmospheric Chemistry and Physics, 2007, 7, 721-738.	4.9	31
78	Atmospheric ray path modeling for radiative transfer algorithms. Applied Optics, 1999, 38, 3129.	2.1	30
79	Level 2 processing for the imaging Fourier transform spectrometer GLORIA: derivation and validation of temperature and trace gas volume mixing ratios from calibrated dynamics mode spectra. Atmospheric Measurement Techniques, 2015, 8, 2473-2489.	3.1	30
80	Global stratospheric HOCl distributions retrieved from infrared limb emission spectra recorded by the Michelson Interferometer for Passive Atmospheric Sounding (MIPAS). Journal of Geophysical Research, 2006, 111, .	3.3	29
81	Sulfur dioxide (SO₂) as observed by MIPAS/Envisat: temporal development and spatial distribution at 15â€“45 km altitude. Atmospheric Chemistry and Physics, 2013, 13, 10405-10423.	4.9	29
82	Vertical profile of peroxyacetyl nitrate (PAN) from MIPAS-STR measurements over Brazil in February 2005 and its contribution to tropical UT NO_y partitioning. Atmospheric Chemistry and Physics, 2008, 8, 4891-4902.	4.9	28
83	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.	3.1	28
84	Cross-validation of MIPAS/ENVISAT and GPS-RO/CHAMP temperature profiles. Journal of Geophysical Research, 2004, 109, .	3.3	27
85	Vibrationally excited ozone in the middle atmosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 202-212.	1.6	26
86	Retrieval of global upper tropospheric and stratospheric formaldehyde (H₂CO) distributions from high-resolution MIPAS-Envisat spectra. Atmospheric Chemistry and Physics, 2008, 8, 463-470.	4.9	26
87	Stratospheric BrONO₂ observed by MIPAS. Atmospheric Chemistry and Physics, 2009, 9, 1735-1746.	4.9	26
88	Stratospheric N2O5in the austral spring 2002 as retrieved from limb emission spectra recorded by the Michelson Interferometer for Passive Atmospheric Sounding (MIPAS). Journal of Geophysical Research, 2004, 109, .	3.3	25
89	Comparison of HDO measurements from Envisat/MIPAS with observations by Odin/SMR and SCISAT/ACE-FTS. Atmospheric Measurement Techniques, 2011, 4, 1855-1874.	3.1	25
90	Global carbonyl sulfide (OCS) measured by MIPAS/Envisat during 2002â€“2012. Atmospheric Chemistry and Physics, 2017, 17, 2631-2652.	4.9	25

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91	The Australian bushfires of February 2009: MIPAS observations and GEM-AQ model results. Atmospheric Chemistry and Physics, 2013, 13, 1637-1658.	4.9	24
92	MIPAS observations of volcanic sulfate aerosol and sulfur dioxide in the stratosphere. Atmospheric Chemistry and Physics, 2018, 18, 1217-1239.	4.9	24
93	Validation of MIPAS IMK/IAA V5R_O3_224 ozone profiles. Atmospheric Measurement Techniques, 2014, 7, 3971-3987.	3.1	24
94	Analysis of nonlocal thermodynamic equilibrium CO 4.7Î¼m fundamental, isotopic, and hot band emissions measured by the Michelson Interferometer for Passive Atmospheric Sounding on Envisat. Journal of Geophysical Research, 2007, 112, .	3.3	23
95	Scattering in infrared radiative transfer: A comparison between the spectrally averaging model JURASSIC and the line-by-line model KOPRA. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 127, 102-118.	2.3	23
96	The added value of a visible channel to a geostationary thermal infrared instrument to monitor ozone for air quality. Atmospheric Measurement Techniques, 2014, 7, 2185-2201.	3.1	23
97	Monsoon circulations and tropical heterogeneous chlorine chemistry in the stratosphere. Geophysical Research Letters, 2016, 43, 12,624.	4.0	23
98	Airborne limb-imaging measurements of temperature, HNO₃, O₃, ClONO₂, H₂O and CFC-12 during the Arctic winter 2015/2016: characterization, inÂsitu validation and comparison to Aura/MLS. Atmospheric Measurement Techniques, 2018, 11, 4737-4756.	3.1	23
99	Intercomparison of radiative transfer codes under non-local thermodynamic equilibrium conditions. Journal of Geophysical Research, 2002, 107, ACH 12-1.	3.3	22
100	A comparison of night-time GOMOS and MIPAS ozone profiles in the stratosphere and mesosphere. Advances in Space Research, 2005, 36, 958-966.	2.6	22
101	A geostationary thermal infrared sensor to monitor the lowermost troposphere: O₃ and CO retrieval studies. Atmospheric Measurement Techniques, 2011, 4, 297-317.	3.1	22
102	New aspects in underpotential-overpotential transitions in metal deposition processes. Surface Science, 1991, 248, 234-240.	1.9	21
103	Retrieval of stratospheric and mesospheric O3 from high resolution MIPAS spectra at 15 and 10 Î¼m. Advances in Space Research, 2005, 36, 943-951.	2.6	21
104	MIPAS reduced spectral resolution UTLS-1 mode measurements of temperature, O₃, HNO₃, N₂O, H₂O and relative humidity over ice: retrievals and comparison to MLS. Atmospheric Measurement Techniques, 2009, 2, 337-353.	3.1	21
105	Seasonal and interannual variations in HCN amounts in the upper troposphere and lower stratosphere observed by MIPAS. Atmospheric Chemistry and Physics, 2015, 15, 563-582.	4.9	21
106	A multi-wavelength classification method for polar stratospheric cloud types using infrared limb spectra. Atmospheric Measurement Techniques, 2016, 9, 3619-3639.	3.1	21
107	Phase corrections for the emission sounder MIPAS-FT. Applied Optics, 1993, 32, 4586.	2.1	20
108	Stratospheric aerosol data records for the climate change initiative: Development, validation and application to chemistry-climate modelling. Remote Sensing of Environment, 2017, 203, 296-321.	11.0	20

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109	Methane and nitrous oxide retrievals from MIPAS-ENVISAT. Atmospheric Measurement Techniques, 2015, 8, 4657-4670.	3.1	20
110	Very early chlorine activation and ozone loss in the Arctic winter 2002-2003. Geophysical Research Letters, 2003, 30, n/a-n/a.	4.0	19
111	Evolution of ozone and ozone-related species over Kiruna during the SOLVE/THESEO 2000 campaign retrieved from ground-based millimeter-wave and infrared observations. Journal of Geophysical Research, 2002, 107, SOL 51-1-SOL 51-12.	3.3	18
112	Evaluation of MUSICA IASI tropospheric water vapour profiles using theoretical error assessments and comparisons to GRUAN Vaisala RS92 measurements. Atmospheric Measurement Techniques, 2018, 11, 4981-5006.	3.1	17
113	Validation of stratospheric temperatures measured by Michelson Interferometer for Passive Atmospheric Sounding (MIPAS) on Envisat. Journal of Geophysical Research, 2005, 110, .	3.3	16
114	Global distributions of HO2NO2as observed by the Michelson Interferometer for Passive Atmospheric Sounding (MIPAS). Journal of Geophysical Research, 2007, 112, .	3.3	16
115	The role of sulfur dioxide in stratospheric aerosol formation evaluated by using in situ measurements in the tropical lower stratosphere. Geophysical Research Letters, 2017, 44, 4280-4286.	4.0	16
116	Measurements of polar mesospheric clouds in infrared emission by MIPAS/ENVISAT. Journal of Geophysical Research, 2009, 114, .	3.3	15
117	MIPAS IMK/IAA CFC-11 (CCl₃F) and CFC-12 (CCl₂F₂) measurements: accuracy, precision and long-term stability. Atmospheric Measurement Techniques, 2016, 9, 3355-3389.	3.1	15
118	Comparison of ECHAM5/MESSy Atmospheric Chemistry (EMAC) simulations of the Arctic winter 2009/2010 and 2010/2011 with Envisat/MIPAS and Aura/MLS observations. Atmospheric Chemistry and Physics, 2018, 18, 8873-8892.	4.9	15
119	Mesoscale fine structure of a tropopause fold over mountains. Atmospheric Chemistry and Physics, 2018, 18, 15643-15667.	4.9	15
120	Solid Ammonium Nitrate Aerosols as Efficient Ice Nucleating Particles at Cirrus Temperatures. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032248.	3.3	15
121	Airborne measurements during the European Arctic Stratospheric Ozone Experiment column amounts of HNO3and O3derived from FTIR emission sounding. Geophysical Research Letters, 1994, 21, 1351-1354.	4.0	14
122	Mountain polar stratospheric cloud measurements by Ground Based FTIR Solar Absorption Spectroscopy. Geophysical Research Letters, 2001, 28, 2189-2192.	4.0	14
123	Estimating cirrus cloud properties from MIPAS data. Geophysical Research Letters, 2007, 34, .	4.0	14
124	HOCl chemistry in the Antarctic Stratospheric Vortex 2002, as observed with the Michelson Interferometer for Passive Atmospheric Sounding (MIPAS). Atmospheric Chemistry and Physics, 2009, 9, 1817-1829.	4.9	14
125	Intercomparison of ILAS-II version 1.4 and version 2 target parameters with MIPAS-Envisat measurements. Atmospheric Chemistry and Physics, 2008, 8, 825-843.	4.9	12
126	Spectroscopic evidence of large aspherical <i>Î²</i>-NAT particles involved in denitrification in the December 2011 Arctic stratosphere. Atmospheric Chemistry and Physics, 2016, 16, 9505-9532.	4.9	12

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127	Aircraft-borne detection of stratospheric column amounts of O3, NO2, OClO, ClNO3, HNO3, and aerosols around the arctic vortex (79Â°N to 39Â°N) during spring 1993: 1. Observational data. Journal of Geophysical Research, 1997, 102, 10801-10814.	3.3	11
128	Observation of Polar Stratospheric Clouds down to the Mediterranean coast. Atmospheric Chemistry and Physics, 2007, 7, 5275-5281.	4.9	11
129	The natural greenhouse effect of atmospheric oxygen (O₂) and nitrogen (N₂). Geophysical Research Letters, 2012, 39, .	4.0	11
130	Validation of first chemistry mode retrieval results from the new limb-imaging FTS GLORIA with correlative MIPAS-STR observations. Atmospheric Measurement Techniques, 2015, 8, 2509-2520.	3.1	11
131	Correction of phase anomalies of atmospheric emission spectra by the double-differencing method. Applied Optics, 1996, 35, 2649.	2.1	10
132	Measurements of global distributions of polar mesospheric clouds during 2005â€“2012 by MIPAS/Envisat. Atmospheric Chemistry and Physics, 2016, 16, 6701-6719.	4.9	10
133	Impacts of meteoric sulfur in the Earth's atmosphere. Journal of Geophysical Research D: Atmospheres, 2017, 122, 7678-7701.	3.3	10
134	Unusual chlorine partitioning in the 2015/16 Arctic winter lowermost stratosphere: observations and simulations. Atmospheric Chemistry and Physics, 2019, 19, 8311-8338.	4.9	10
135	Comparisons of MIPAS/ENVISAT ozone profiles with SMR/ODIN and HALOE/UARS observations. Advances in Space Research, 2005, 36, 927-931.	2.6	9
136	Longitudinal variations of temperature and ozone profiles observed by MIPAS during the Antarctic stratosphere sudden warming of 2002. Journal of Geophysical Research, 2005, 110, .	3.3	9
137	Chlorine nitrate in the atmosphere over St. Petersburg. Izvestiya - Atmospheric and Oceanic Physics, 2015, 51, 49-56.	0.9	9
138	Evidence for the removal of gaseous HNO3inside the arctic polar vortex in January 1992. Geophysical Research Letters, 1996, 23, 149-152.	4.0	8
139	Non-LTE state distribution of nitric oxide and its impact on the retrieval of the stratospheric daytime no profile from MIPAS limb sounding instruments. Advances in Space Research, 2000, 26, 947-950.	2.6	8
140	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.	4.9	8
141	Synergy between middle infrared and millimeter-wave limb sounding of atmospheric temperature and minor constituents. Atmospheric Measurement Techniques, 2016, 9, 2267-2289.	3.1	8
142	Design and description of the MUSICA IASI full retrieval product. Earth System Science Data, 2022, 14, 709-742.	9.9	8
143	Aerosols and Water Ice in Jupiterâ€™s Stratosphere from UV-NIR Ground-based Observations. Astronomical Journal, 2018, 156, 169.	4.7	7
144	Modeling the Sulfate Aerosol Evolution After Recent Moderate Volcanic Activity, 2008â€“2012. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035472.	3.3	7

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145	Remotely Sensed Carbonyl Sulfide Constrains Model Estimates of Amazon Primary Productivity. Geophysical Research Letters, 2022, 49, .	4.0	7
146	HNO3 and PSC Measurements from the Transall: Sequestering of HNO3 in the Winter of 1994/95. Journal of Atmospheric Chemistry, 1998, 30, 61-79.	3.2	6
147	Antarctic winter tropospheric warmingâ€"the potential role of polar stratospheric clouds, a sensitivity study. Atmospheric Science Letters, 2009, 10, 262-266.	1.9	6
148	Global stratospheric hydrogen peroxide distribution from MIPAS-Envisat full resolution spectra compared to KASIMA model results. Atmospheric Chemistry and Physics, 2012, 12, 4923-4933.	4.9	6
149	3-D tomographic limb sounder retrieval techniques: irregular grids and Laplacian regularisation. Atmospheric Measurement Techniques, 2019, 12, 853-872.	3.1	6
150	Nitrification of the lowermost stratosphere during the exceptionally cold Arctic winter 2015â€"2016. Atmospheric Chemistry and Physics, 2019, 19, 13681-13699.	4.9	6
151	Pollution trace gases C₂H₆, C₂H₂, HCOOH, and PAN in the North Atlantic UTLS: observations and simulations. Atmospheric Chemistry and Physics, 2021, 21, 8213-8232.	4.9	6
152	Trace gas retrieval including horizontal gradients. Advances in Space Research, 2002, 29, 1631-1636.	2.6	5
153	Evidence for N2OÎ½34.5Î¼m non-local thermodynamic equilibrium emission in the atmosphere. Geophysical Research Letters, 2007, 34, .	4.0	5
154	The MIPAS/Envisat climatology (2002â€"2012) of polar stratospheric cloud volume density profiles. Atmospheric Measurement Techniques, 2018, 11, 5901-5923.	3.1	5
155	Sampling bias adjustment for sparsely sampled satellite measurements applied to ACE-FTS carbonyl sulfide observations. Atmospheric Measurement Techniques, 2019, 12, 2129-2138.	3.1	5
156	Vortexâ€Wide Detection of Large Aspherical NAT Particles in the Arctic Winter 2011/12 Stratosphere. Geophysical Research Letters, 2019, 46, 13420-13429.	4.0	5
157	Observation of cirrus clouds with GLORIA during the WISE campaign: detection methods and cirrus characterization. Atmospheric Measurement Techniques, 2021, 14, 3153-3168.	3.1	5
158	Technical note: Lowermost-stratosphere moist bias in ECMWF IFS model diagnosed from airborne GLORIA observations during winterâ€"spring 2016. Atmospheric Chemistry and Physics, 2020, 20, 15379-15387.	4.9	5
159	New calibration noise suppression techniques for the GLORIA limb imager. Atmospheric Measurement Techniques, 2015, 8, 3147-3161.	3.1	4
160	First Detection of a Brief Mesoscale Elevated Stratopause in Very Early Winter. Geophysical Research Letters, 2020, 47, e2019GL086751.	4.0	4
161	Comparison of GPS/SAC-C and MIPAS/ENVISAT Temperature Profiles and Its Possible Implementation for EOS MLS Observations. , 2005, , 573-578.		3
162	Diurnal variations of BrONO₂ observed by MIPAS-B at midlatitudes and in the Arctic. Atmospheric Chemistry and Physics, 2017, 17, 14631-14643.	4.9	3

#	Article	IF	Citations
163	High-resolution optical constants of crystalline ammonium nitrate for infrared remote sensing of the Asian Tropopause Aerosol Layer. Atmospheric Measurement Techniques, 2021, 14, 1977-1991.	3.1	3
164	Cirrus cloud shape detection by tomographic extinction retrievals from infrared limb emission sounder measurements. Atmospheric Measurement Techniques, 2020, 13, 7025-7045.	3.1	3
165	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.	4.9	3
166	Exploration of machine learning methods for the classification of infrared limb spectra of polar stratospheric clouds. Atmospheric Measurement Techniques, 2020, 13, 3661-3682.	3.1	2
167	Sequential and joint retrieval of trace gas profiles. Advances in Space Research, 2002, 29, 1649-1654.	2.6	1
168	Comparisons of MIPAS/ENVISAT and GPS-RO/CHAMP Temperatures. , 2005, , 567-572.		1
169	Retrieval of Water Vapour Profiles from GLORIA Nadir Observations. Remote Sensing, 2021, 13, 3675.	4.0	1
170	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.	4.9	1
171	Feasibility of measurements of water vapor and ice clouds in the tropical UT/LS region with MIPAS/Envisat. Advances in Space Research, 2004, 34, 815-819.	2.6	0
172	Correction to â€œVery early chlorine activation and ozone loss in the Arctic winter 2002â€“2003â€• Geophysical Research Letters, 2004, 31, .	4.0	0
173	Corrigendum to "Tropospheric ozone from IASI: comparison of different inversion algorithms and validation with ozone sondes in the northern middle latitudes" published in Atmos. Chem. Phys., 9, 9329â€“9347, doi:10.5194/acp-9-9329-2009, 2009. Atmospheric Chemistry and Physics, 2010, 10, 6345-6345.	4.9	0
174	Corrigendum to "The Australian bushfires of February 2009: MIPAS observations and GEM-AQ model results" published in Atmos. Chem. Phys., 13, 1637â€“1658, 2013. Atmospheric Chemistry and Physics, 2013, 13, 4373-4373.	4.9	0
175	Corrigendum to "Seasonal and interannual variations of HCN amounts in the upper troposphere and lower stratosphere observed by MIPAS" published in Atmos. Chem. Phys., 15, 563â€“582, 2015. Atmospheric Chemistry and Physics, 2015, 15, 2487-2488.	4.9	0
176	Performances of the Near Real Time Code for MIPAS Data Analysis. , 2000, , 335-347.		0
177	Challenge of modelling GLORIA observations of upper troposphereâ€“lowermost stratosphere trace gas and cloud distributions at high latitudes: a case study with state-of-the-art models. Atmospheric Chemistry and Physics, 2022, 22, 2843-2870.	4.9	0