

Manuel Lopez-Puertas

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ext. citations

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L-index

#	Paper	IF	Citations
225	MIPAS: an instrument for atmospheric and climate research. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 2151-2188	6.8	502
224	Assessment of the quality of the Version 1.07 temperature-versus-pressure profiles of the middle atmosphere from TIMED/SABER. <i>Journal of Geophysical Research</i> , 2008 , 113,		304
223	Retrieval of mesospheric and lower thermospheric kinetic temperature from measurements of CO ₂ 15 μ m Earth Limb Emission under non-LTE conditions. <i>Geophysical Research Letters</i> , 2001 , 28, 1391-1394	4.9	208
222	MIPAS level 2 operational analysis. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 5605-5630	6.8	158
221	Observed temporal evolution of global mean age of stratospheric air for the 2002 to 2010 period. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 3311-3331	6.8	151
220	SABER observations of mesospheric temperatures and comparisons with falling sphere measurements taken during the 2002 summer MaCWAVE campaign. <i>Geophysical Research Letters</i> , 2004 , 31,	4.9	147
219	Short- and medium-term atmospheric constituent effects of very large solar proton events. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 765-785	6.8	133
218	Observation of NO _x enhancement and ozone depletion in the Northern and Southern Hemispheres after the October/November 2003 solar proton events. <i>Journal of Geophysical Research</i> , 2005 , 110,		118
217	The CARMENES search for exoplanets around M dwarfs. <i>Astronomy and Astrophysics</i> , 2018 , 612, A49	5.1	118
216	Downward transport of upper atmospheric NO _x into the polar stratosphere and lower mesosphere during the Antarctic 2003 and Arctic 2002/2003 winters. <i>Journal of Geophysical Research</i> , 2005 , 110,		117
215	Ground-based detection of an extended helium atmosphere in the Saturn-mass exoplanet WASP-69b. <i>Science</i> , 2018 , 362, 1388-1391	33.3	117
214	Composition changes after the "Halloween" solar proton event: the High Energy Particle Precipitation in the Atmosphere (HEPPA) model versus MIPAS data intercomparison study. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 9089-9139	6.8	113
213	The natural thermostat of nitric oxide emission at 5.3 μ m in the thermosphere observed during the solar storms of April 2002. <i>Geophysical Research Letters</i> , 2003 , 30,	4.9	102
212	CO measurements from the ACE-FTS satellite instrument: data analysis and validation using ground-based, airborne and spaceborne observations. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 2569-2594	6.8	91
211	Energy transport in the thermosphere during the solar storms of April 2002. <i>Journal of Geophysical Research</i> , 2005 , 110,		89
210	Global distribution of mean age of stratospheric air from MIPAS SF ₆ measurements. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 677-695	6.8	87
209	Observations of infrared radiative cooling in the thermosphere on daily to multiyear timescales from the TIMED/SABER instrument. <i>Journal of Geophysical Research</i> , 2010 , 115, n/a-n/a		86

208	EChO. <i>Experimental Astronomy</i> , 2012 , 34, 311-353	1.3	82
207	LARGE ABUNDANCES OF POLYCYCLIC AROMATIC HYDROCARBONS IN TITAN'S UPPER ATMOSPHERE. <i>Astrophysical Journal</i> , 2013 , 770, 132	4.7	81
206	Detection of He I 10830 Å absorption on HD 189733 b with CARMENES high-resolution transmission spectroscopy. <i>Astronomy and Astrophysics</i> , 2018 , 620, A97	5.1	80
205	Errors in Sounding of the Atmosphere using Broadband Emission Radiometry (SABER) kinetic temperature caused by non-local-thermodynamic-equilibrium model parameters. <i>Journal of Geophysical Research</i> , 2008 , 113,		79
204	On the distribution of CO ₂ and CO in the mesosphere and lower thermosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014 , 119, 5700-5718	4.4	74
203	Martian dust storm impact on atmospheric HO and D/H observed by ExoMars Trace Gas Orbiter. <i>Nature</i> , 2019 , 568, 521-525	50.4	72
202	Carbon monoxide distributions from the upper troposphere to the mesosphere inferred from 4.7 μ m non-local thermal equilibrium emissions measured by MIPAS on Envisat. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 2387-2411	6.8	71
201	The CARMENES search for exoplanets around M dwarfs. <i>Astronomy and Astrophysics</i> , 2018 , 609, A117	5.1	71
200	Evidence for dynamical coupling from the lower atmosphere to the thermosphere during a major stratospheric warming. <i>Geophysical Research Letters</i> , 2010 , 37, n/a-n/a	4.9	70
199	Retrieval of stratospheric NO _x from 5.3 and 6.2 μ m nonlocal thermodynamic equilibrium emissions measured by Michelson Interferometer for Passive Atmospheric Sounding (MIPAS) on Envisat. <i>Journal of Geophysical Research</i> , 2005 , 110,		70
198	Altitude distribution of vibrationally excited states of atmospheric hydroxyl at levels v = 2 to v = 7. <i>Planetary and Space Science</i> , 1987 , 35, 1029-1038	2	69
197	No detection of methane on Mars from early ExoMars Trace Gas Orbiter observations. <i>Nature</i> , 2019 , 568, 517-520	50.4	68
196	A non-LTE radiative transfer model for infrared bands in the middle atmosphere. I. Theoretical basis and application to CO ₂ 15 μ m bands. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1986 , 48, 729-748		67
195	Science objectives and performances of NOMAD, a spectrometer suite for the ExoMars TGO mission. <i>Planetary and Space Science</i> , 2015 , 119, 233-249	2	63
194	HNO ₃ , N ₂ O ₅ , and ClONO ₂ enhancements after the October/November 2003 solar proton events. <i>Journal of Geophysical Research</i> , 2005 , 110,		63
193	Mesospheric and stratospheric NO _y produced by energetic particle precipitation during 2002-2012. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014 , 119, 4429-4446	4.4	61
192	Northern Hemisphere atmospheric influence of the solar proton events and ground level enhancement in January 2005. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 6153-6166	6.8	60
191	NOMAD, an Integrated Suite of Three Spectrometers for the ExoMars Trace Gas Mission: Technical Description, Science Objectives and Expected Performance. <i>Space Science Reviews</i> , 2018 , 214, 1	7.5	57

190	Satellite observations of ozone in the upper mesosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 5803-5821	4.4	55
189	Ten years of MIPAS measurements with ESA Level 2 processor V6 [Part 1: Retrieval algorithm and diagnostics of the products. <i>Atmospheric Measurement Techniques</i> , 2013 , 6, 2419-2439	4	55
188	Validation of NO ₂ and NO from the Atmospheric Chemistry Experiment (ACE). <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 5801-5841	6.8	54
187	Non-local thermodynamic equilibrium studies of the 15- μ m bands of CO ₂ for atmospheric remote sensing. <i>Journal of Geophysical Research</i> , 1993 , 98, 14955		54
186	Neutral atmospheric composition between 60 and 220 km: A theoretical model for mid-latitudes. <i>Planetary and Space Science</i> , 1986 , 34, 723-743	2	54
185	Water vapor distributions measured with the Michelson Interferometer for Passive Atmospheric Sounding on board Envisat (MIPAS/Envisat). <i>Journal of Geophysical Research</i> , 2005 , 110,		53
184	Analysis of the upper atmosphere CO ₂ (v ₂) vibrational temperatures retrieved from ATMOS/Spacelab 3 observations. <i>Journal of Geophysical Research</i> , 1992 , 97, 20469		53
183	SABER observations of mesospheric ozone during NH late winter 2002–2009. <i>Geophysical Research Letters</i> , 2009 , 36,	4.9	52
182	A non-LTE radiative transfer model for infrared bands in the middle atmosphere. II. CO ₂ (2.7 and 4.3 μ m) and water vapour (6.3 μ m) bands and N ₂ (1) and O ₂ (1) vibrational levels. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1986 , 48, 749-764		51
181	GRANADA: A Generic Radiative traNSfer ANd non-LTE population algorithm. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2012 , 113, 1771-1817	2.1	50
180	An enhanced HNO ₃ second maximum in the Antarctic midwinter upper stratosphere 2003. <i>Journal of Geophysical Research</i> , 2005 , 110,		50
179	A blind test retrieval experiment for infrared limb emission spectrometry. <i>Journal of Geophysical Research</i> , 2003 , 108,		50
178	CARMENES: an overview six months after first light 2016 ,		49
177	Experimental evidence of perturbed odd hydrogen and chlorine chemistry after the October 2003 solar proton events. <i>Journal of Geophysical Research</i> , 2005 , 110,		49
176	ALMA Discovery of Dust Belts around Proxima Centauri. <i>Astrophysical Journal Letters</i> , 2017 , 850, L6	7.9	48
175	Non-local thermodynamic equilibrium in general circulation models of the Martian atmosphere 1. Effects of the local thermodynamic equilibrium approximation on thermal cooling and solar heating. <i>Journal of Geophysical Research</i> , 1998 , 103, 16799-16811		47
174	Local thermodynamic equilibrium of carbon dioxide in the upper atmosphere. <i>Geophysical Research Letters</i> , 1992 , 19, 589-592	4.9	47
173	Validation of MIPAS-ENVISAT NO ₂ operational data. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 3261-3284	6.8	45

172	Kinetic temperature and carbon dioxide from broadband infrared limb emission measurements taken from the TIMED/SABER instrument. <i>Advances in Space Research</i> , 2009 , 43, 15-27	2.4	44
171	Non-LTE Infrared Emissions of CO ₂ in the Atmosphere of Venus. <i>Icarus</i> , 2000 , 147, 11-25	3.8	42
170	HEPPA-II model measurement intercomparison project: EPP indirect effects during the dynamically perturbed NH winter 2008-2009. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 3573-3604	6.8	41
169	Retrieval of stratospheric ozone profiles from MIPAS/ENVISAT limb emission spectra: a sensitivity study. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 2767-2781	6.8	41
168	Modelling of atmospheric mid-infrared radiative transfer: the AMIL2DA algorithm intercomparison experiment. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2003 , 78, 381-407	2.1	41
167	A new non-LTE retrieval method for atmospheric parameters from mipas-envisat emission spectra. <i>Advances in Space Research</i> , 2001 , 27, 1099-1104	2.4	41
166	Optimized spectral microwindows for data analysis of the Michelson Interferometer for Passive Atmospheric Sounding on the Environmental Satellite. <i>Applied Optics</i> , 2000 , 39, 5531-40	1.7	41
165	Multiple water band detections in the CARMENES near-infrared transmission spectrum of HD 189733 b. <i>Astronomy and Astrophysics</i> , 2019 , 621, A74	5.1	38
164	The solar proton events in 2012 as observed by MIPAS. <i>Geophysical Research Letters</i> , 2013 , 40, 2339-2343	4.9	37
163	Validation of Thermosphere Ionosphere Mesosphere Energetics and Dynamics/Sounding of the Atmosphere using Broadband Emission Radiometry (TIMED/SABER) v1.07 ozone at 9.6 μ m in altitude range 15-70 km. <i>Journal of Geophysical Research</i> , 2009 , 114,		37
162	About the increase of HNO ₃ in the stratopause region during the Halloween 2003 solar proton event. <i>Geophysical Research Letters</i> , 2008 , 35,	4.9	36
161	A review of CO ₂ and CO abundances in the middle atmosphere. <i>Geophysical Monograph Series</i> , 2000 , 83-100	1.1	36
160	Carbon dioxide 4.3- μ m emission in the Earth's atmosphere: A comparison between Nimbus 7 SAMS measurements and non-local thermodynamic equilibrium radiative transfer calculations. <i>Journal of Geophysical Research</i> , 1989 , 94, 13045		36
159	Middle atmospheric changes caused by the January and March 2012 solar proton events. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 1025-1038	6.8	35
158	Validation of measurements of carbon monoxide from the improved stratospheric and mesospheric sounder. <i>Journal of Geophysical Research</i> , 1996 , 101, 9929-9955		35
157	The CARMENES search for exoplanets around M dwarfs. <i>Astronomy and Astrophysics</i> , 2018 , 609, L5	5.1	35
156	Hemispheric distributions and interannual variability of NO _y produced by energetic particle precipitation in 2002-2012. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014 , 119, 13,565-13,582	4.4	34
155	An unidentified emission in Titan's upper atmosphere. <i>Geophysical Research Letters</i> , 2013 , 40, 1489-1493	4.9	34

154	Antarctic polar descent and planetary wave activity observed in ISAMS CO from April to July 1992. <i>Geophysical Research Letters</i> , 2000 , 27, 665-668	4.9	34
153	A non-local thermodynamic equilibrium radiative transfer model for infrared emissions in the atmosphere of Mars: 1. Theoretical basis and nighttime populations of vibrational levels. <i>Journal of Geophysical Research</i> , 1994 , 99, 13093		34
152	Global observations of thermospheric temperature and nitric oxide from MIPAS spectra at 5.3 μm . <i>Journal of Geophysical Research</i> , 2011 , 116, n/a-n/a		33
151	Non-local thermodynamic equilibrium model for H ₂ O 6.3 and 2.7- μm bands in the middle atmosphere. <i>Journal of Geophysical Research</i> , 1995 , 100, 9131		33
150	Radiative Energy Balance of CO ₂ Non-LTE Infrared Emissions in the Martian Atmosphere. <i>Icarus</i> , 1995 , 114, 113-129	3.8	33
149	Analysis of CO ₂ non-LTE emissions at 4.3 μm in the Martian atmosphere as observed by PFS/Mars Express and SWS/ISO. <i>Planetary and Space Science</i> , 2005 , 53, 1079-1087	2	32
148	Ground-based mesospheric temperatures at mid-latitude derived from O ₂ and OH airglow SATI data: Comparison with SABER measurements. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2007 , 69, 2379-2390	2	30
147	Remote sensing of the middle atmosphere with MIPAS 2003 ,		30
146	Cross comparisons of O ₃ and NO ₂ measured by the atmospheric ENVISAT instruments GOMOS, MIPAS, and SCIAMACHY. <i>Advances in Space Research</i> , 2005 , 36, 855-867	2.4	30
145	Non local thermodynamic equilibrium (LTE) atmospheric limb emission at 4.6 μm : 1. An update of the CO ₂ non-LTE radiative transfer model. <i>Journal of Geophysical Research</i> , 1998 , 103, 8499-8513		30
144	Energetic particle precipitation: A major driver of the ozone budget in the Antarctic upper stratosphere. <i>Geophysical Research Letters</i> , 2016 , 43, 3554-3562	4.9	30
143	Rotational temperatures of Venus upper atmosphere as measured by SOIR on board Venus Express. <i>Planetary and Space Science</i> , 2015 , 113-114, 347-358	2	29
142	Ozone loss driven by nitrogen oxides and triggered by stratospheric warmings can outweigh the effect of halogens. <i>Journal of Geophysical Research</i> , 2007 , 112,		29
141	NO _y from Michelson Interferometer for Passive Atmospheric Sounding on Environmental Satellite during the Southern Hemisphere polar vortex split in September/October 2002. <i>Journal of Geophysical Research</i> , 2005 , 110,		29
140	CARMENES: high-resolution spectra and precise radial velocities in the red and infrared 2018 ,		29
139	JUPITER AS AN EXOPLANET: UV TO NIR TRANSMISSION SPECTRUM REVEALS HAZES, A Na LAYER, AND POSSIBLY STRATOSPHERIC H ₂ O-ICE CLOUDS. <i>Astrophysical Journal Letters</i> , 2015 , 801, L8	7.9	28
138	Increasing carbon dioxide concentration in the upper atmosphere observed by SABER. <i>Geophysical Research Letters</i> , 2015 , 42, 7194-7199	4.9	28
137	Modelling of non-LTE limb spectra of i.r. ozone bands for the MIPAS space experiment. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 1998 , 59, 405-422	2.1	28

136	Model simulations of stratospheric ozone loss caused by enhanced mesospheric NO _x during Arctic Winter 2003/2004. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 5279-5293	6.8	28
135	Evidence for an OH($\tilde{\nu}$) excitation mechanism of CO ₂ 4.3 μ m nighttime emission from SABER/TIMED measurements. <i>Journal of Geophysical Research</i> , 2004 , 109,		28
134	Validation of nitric acid retrieved by the IMK-IAA processor from MIPAS/ENVISAT measurements. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 721-738	6.8	27
133	Expected performances of the NOMAD/ExoMars instrument. <i>Planetary and Space Science</i> , 2016 , 124, 94-104	2	26
132	The EChO science case. <i>Experimental Astronomy</i> , 2015 , 40, 329-391	1.3	26
131	MIPAS temperature from the stratosphere to the lower thermosphere: Comparison of vM21 with ACE-FTS, MLS, OSIRIS, SABER, SOFIE and lidar measurements. <i>Atmospheric Measurement Techniques</i> , 2014 , 7, 3633-3651	4	26
130	The Stratospheric and Mesospheric NO _y in the 2002-2004 Polar Winters as measured by MIPAS/ENVISAT. <i>Space Science Reviews</i> , 2007 , 125, 403-416	7.5	26
129	A non-local thermodynamic equilibrium radiative transfer model for infrared emissions in the atmosphere of Mars: 2. Daytime populations of vibrational levels. <i>Journal of Geophysical Research</i> , 1994 , 99, 13117		26
128	Mesospheric N ₂ O enhancements as observed by MIPAS on Envisat during the polar winters in 2002-2004. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 5787-5800	6.8	25
127	Vibrational temperatures and radiative cooling of the CO ₂ 15 μ m bands in the middle atmosphere. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1992 , 118, 499-532	6.4	25
126	Distribution of HCN in Titan's upper atmosphere from Cassini/VIMS observations at 3 μ m. <i>Icarus</i> , 2011 , 214, 584-595	3.8	24
125	Cross-validation of MIPAS/ENVISAT and GPS-RO/CHAMP temperature profiles. <i>Journal of Geophysical Research</i> , 2004 , 109,		24
124	Methane on Mars: New insights into the sensitivity of CH ₄ with the NOMAD/ExoMars spectrometer through its first in-flight calibration. <i>Icarus</i> , 2019 , 321, 671-690	3.8	24
123	Nonlocal thermodynamic equilibrium vibrational, rotational, and spin state distribution of NO($\tilde{\nu}$ 0, 1, 2) under quiescent atmospheric conditions. <i>Journal of Geophysical Research</i> , 2000 , 105, 4409-4426		23
122	On the quality of MIPAS kinetic temperature in the middle atmosphere. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 6009-6039	6.8	22
121	Daytime SABER/TIMED observations of water vapor in the mesosphere: retrieval approach and first results. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 8139-8158	6.8	22
120	Enhancement of N ₂ O during the October-November 2003 solar proton events. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 3805-3815	6.8	22
119	Analysis of nonlocal thermodynamic equilibrium CO 4.7 μ m fundamental, isotopic, and hot band emissions measured by the Michelson Interferometer for Passive Atmospheric Sounding on Envisat. <i>Journal of Geophysical Research</i> , 2007 , 112,		22

118	Vibrationally excited ozone in the middle atmosphere. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2006 , 68, 202-212	2	22
117	Modelling the He I triplet absorption at 10 830 Å in the atmosphere of HD 209458 b. <i>Astronomy and Astrophysics</i> , 2020 , 636, A13	5.1	22
116	An observational and theoretical study of the longitudinal variation in neutral temperature induced by aurora heating in the lower thermosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2013 , 118, 7410-7425	2.6	21
115	Fast forward radiative transfer modeling of 4.3 μm nonlocal thermodynamic equilibrium effects for infrared temperature sounders. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	21
114	Studies of Solar Heating by CO ₂ in the Upper Atmosphere Using a Non-LTE Model and Satellite Data. <i>Journals of the Atmospheric Sciences</i> , 1990 , 47, 809-822	2.1	21
113	Radiative and energetic constraints on the global annual mean atomic oxygen concentration in the mesopause region. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 5796-5802	4.4	20
112	Analysis of Titan CH ₄ 3.3 μm upper atmospheric emission as measured by Cassini/VIMS. <i>Icarus</i> , 2011 , 214, 571-583	3.8	20
111	Retrieval of stratospheric and mesospheric O ₃ from high resolution MIPAS spectra at 15 and 10 μm . <i>Advances in Space Research</i> , 2005 , 36, 943-951	2.4	20
110	Intercomparison of radiative transfer codes under non-local thermodynamic equilibrium conditions. <i>Journal of Geophysical Research</i> , 2002 , 107, ACH 12-1		20
109	Non local thermodynamic equilibrium (LTE) atmospheric limb emission at 4.6 μm : 2. An analysis of the daytime wideband radiances as measured by UARS improved stratospheric and mesospheric sounder. <i>Journal of Geophysical Research</i> , 1998 , 103, 8515-8530		20
108	Non-local thermodynamic equilibrium limb radiance near 10 μm as measured by UARS CLAES. <i>Journal of Geophysical Research</i> , 1996 , 101, 26577-26588		20
107	On the secular trend of CO _x and CO ₂ in the lower thermosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 3634-3644	4.4	19
106	Comment on Origin of the January-April 2004 increase in stratospheric NO ₂ observed in northern polar latitudes by Jean-Baptiste Renard et al.. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	19
105	Rotational and spin-orbit distributions of NO observed by MIPAS/ENVISAT during the solar storm of October/November 2003. <i>Journal of Geophysical Research</i> , 2005 , 110,		19
104	A comparison of night-time GOMOS and MIPAS ozone profiles in the stratosphere and mesosphere. <i>Advances in Space Research</i> , 2005 , 36, 958-966	2.4	19
103	Optical and radiometric models of the NOMAD instrument part I: the UVIS channel. <i>Optics Express</i> , 2015 , 23, 30028-42	3.3	18
102	Modeling the atmospheric limb emission of CO ₂ at 4.3 μm in the terrestrial planets. <i>Planetary and Space Science</i> , 2011 , 59, 988-998	2	18
101	Atmospheric non-local thermodynamic equilibrium emissions as observed by the Michelson Interferometer for Passive Atmospheric Sounding (MIPAS). <i>Comptes Rendus Physique</i> , 2005 , 6, 848-863	1.4	18

100	Rocket measurements of O2 infrared atmospheric system in the nightglow. <i>Planetary and Space Science</i> , 1988 , 36, 459-467	2	18
99	Analysis of OI-557.7 nm, NaD, OH(6-2) and nightglow emissions from ground-based observations. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1985 , 47, 1099-1110		18
98	Impact of January 2005 solar proton events on chlorine species. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 4159-4179	6.8	17
97	Satellite Measurements of Middle Atmospheric Impacts by Solar Proton Events in Solar Cycle 23. <i>Space Science Reviews</i> , 2007 , 125, 381-391	7.5	17
96	Chemical heating rates derived from SCIAMACHY vibrationally excited OH limb emission spectra. <i>Advances in Space Research</i> , 2008 , 41, 1914-1920	2.4	17
95	Measurements of water vapor distributions by the improved stratospheric and mesospheric sounder: Retrieval and validation. <i>Journal of Geophysical Research</i> , 1996 , 101, 9907-9928		17
94	Optical and radiometric models of the NOMAD instrument part II: the infrared channels - SO and LNO. <i>Optics Express</i> , 2016 , 24, 3790-805	3.3	16
93	The non-LTE correction to the vibrational component of the internal partition sum for atmospheric calculations. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 1998 , 59, 423-436	2.1	16
92	Non-local thermodynamic equilibrium limb radiances for the mipas instrument on Envisat-1. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 1998 , 59, 377-403	2.1	16
91	Comparison of nighttime nitric oxide 5.3 μ m emissions in the thermosphere measured by MIPAS and SABER. <i>Journal of Geophysical Research</i> , 2007 , 112, n/a-n/a		16
90	Global distributions of HO2NO2 as observed by the Michelson Interferometer for Passive Atmospheric Sounding (MIPAS). <i>Journal of Geophysical Research</i> , 2007 , 112,		16
89	Non-local-thermodynamic-equilibrium populations of the first vibrational excited state of CO in the middle atmosphere. <i>Journal of Geophysical Research</i> , 1993 , 98, 8933-8947		16
88	Non-local thermodynamic equilibrium limb radiance from O3 and CO2 in the 9.4 μ m spectral region. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 1994 , 52, 389-407	2.1	16
87	Variability of NO _x in the polar middle atmosphere from October 2003 to March 2004: vertical transport vs. local production by energetic particles. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 7681-7692	6.8	15
86	Upper mesosphere temperatures in summer: WINDII observations and comparisons. <i>Geophysical Research Letters</i> , 1997 , 24, 357-360	4.9	15
85	Global and seasonal variations in middle atmosphere CO from UARS/ISAMS. <i>Geophysical Research Letters</i> , 1993 , 20, 1247-1250	4.9	15
84	Retrieval of nitric oxide in the mesosphere and lower thermosphere from SCIAMACHY limb spectra. <i>Atmospheric Measurement Techniques</i> , 2013 , 6, 2521-2531	4	14
83	Vibrational quenching of CO2(010) by collisions with O(3P) at thermal energies: a quantum-mechanical study. <i>Journal of Chemical Physics</i> , 2006 , 124, 164302	3.9	14

82	Global distribution of CO ₂ in the upper mesosphere as derived from UARS/ISAMS measurements. <i>Journal of Geophysical Research</i> , 2000 , 105, 19829-19839		14
81	Rapid computation of spectrally integrated non-local thermodynamic equilibrium limb emission. <i>Journal of Geophysical Research</i> , 1994 , 99, 25761		14
80	A semi-empirical model for mesospheric and stratospheric NO ₂ produced by energetic particle precipitation. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 8667-8693	6.8	13
79	Comparison of nitric oxide measurements in the mesosphere and lower thermosphere from ACE-FTS, MIPAS, SCIAMACHY, and SMR. <i>Atmospheric Measurement Techniques</i> , 2015 , 8, 4171-4195	4	13
78	Measurements of polar mesospheric clouds in infrared emission by MIPAS/ENVISAT. <i>Journal of Geophysical Research</i> , 2009 , 114,		13
77	Evidence of non-LTE effects in mesospheric water vapor from spectrally-resolved emissions observed by CIRRIS-1A. <i>Geophysical Research Letters</i> , 1999 , 26, 67-70	4.9	13
76	Nighttime ozone variability in the high latitude winter mesosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014 , 119, 13,547-13,564	4.4	12
75	Non-LTE CO limb emission at in the upper atmosphere of Venus, Mars and Earth: Observations and modeling. <i>Planetary and Space Science</i> , 2011 , 59, 1010-1018	2	12
74	Validation of stratospheric temperatures measured by Michelson Interferometer for Passive Atmospheric Sounding (MIPAS) on Envisat. <i>Journal of Geophysical Research</i> , 2005 , 110,		12
73	Latitudinal and longitudinal behavior of the mesospheric OH nightglow layer as observed by the Improved Stratospheric and Mesospheric Sounder on UARS. <i>Journal of Geophysical Research</i> , 2001 , 106, 8027-8033		12
72	Distinguishing between Wet and Dry Atmospheres of TRAPPIST-1 e and f. <i>Astrophysical Journal</i> , 2020 , 901, 126	4.7	12
71	Titan Science with the James Webb Space Telescope. <i>Publications of the Astronomical Society of the Pacific</i> , 2016 , 128, 018007	5	11
70	Key role of spin-orbit effects in the relaxation of CO ₂ (010) by thermal collisions with O(³ P _j). <i>Molecular Physics</i> , 2007 , 105, 1171-1181	1.7	11
69	Retrieval of kinetic temperature and carbon dioxide abundance from nonlocal thermodynamic equilibrium limb emission measurements made by the SABER experiment on the TIMED satellite 2003 ,		11
68	Non-local thermodynamic equilibrium in H ₂ O 6.9 μ m emission as measured by the improved stratospheric and mesospheric sounder. <i>Journal of Geophysical Research</i> , 1998 , 103, 31293-31308		11
67	On Long-Term SABER CO ₂ Trends and Effects Due to Nonuniform Space and Time Sampling. <i>Journal of Geophysical Research: Space Physics</i> , 2018 , 123, 7958-7967	2.6	11
66	Validation of the MIPAS CO ₂ volume mixing ratio in the mesosphere and lower thermosphere and comparison with WACCM simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 8345-8366	4.4	10
65	Kinetic requirements for the measurement of mesospheric water vapor at 6.8 μ m under non-LTE conditions. <i>Geophysical Research Letters</i> , 1999 , 26, 63-66	4.9	10

64	Mesospheric OH layer altitude at midlatitudes: variability over the Sierra Nevada Observatory in Granada, Spain (37°N, 3°W). <i>Annales Geophysicae</i> , 2017 , 35, 1151-1164	2	9
63	Measurements of global distributions of polar mesospheric clouds during 2005–2012 by MIPAS/Envisat. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 6701-6719	6.8	9
62	Non-LTE Radiative Mesospheric Study for Mars Pathfinder Entry. <i>Icarus</i> , 2000 , 146, 360-365	3.8	9
61	Vibrational-vibrational and vibrational-thermal energy transfers of CO ₂ with N ₂ from MIPAS high-resolution limb spectra. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 8002-8022	4.4	8
60	Changes in the composition of the northern polar upper stratosphere in February 2009 after a sudden stratospheric warming. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014 , 119, 11,429-11,444	4.4	8
59	Influence of solar-geomagnetic disturbances on SABER measurements of 4.3 μ m emission and the retrieval of kinetic temperature and carbon dioxide. <i>Advances in Space Research</i> , 2009 , 43, 1325-1336	2.4	8
58	Evidence for CH ₄ 7.6 μ m non-local thermodynamic equilibrium emission in the mesosphere. <i>Geophysical Research Letters</i> , 2005 , 32, n/a-n/a	4.9	8
57	Longitudinal variations of temperature and ozone profiles observed by MIPAS during the Antarctic stratosphere sudden warming of 2002. <i>Journal of Geophysical Research</i> , 2005 , 110,		8
56	Evidence of H ₂ O nonlocal thermodynamic equilibrium emission near 6.4 μ m as measured by cryogenic infrared spectrometers and telescopes for the atmosphere (CRISTA 1). <i>Journal of Geophysical Research</i> , 2000 , 105, 29003-29021		8
55	Modelling the He I triplet absorption at 10 830 Å in the atmospheres of HD 189733 b and GJ 3470 b. <i>Astronomy and Astrophysics</i> , 2021 , 647, A129	5.1	8
54	Modeling of Nonlocal Thermodynamic Equilibrium Effects in the Classical and Principal Component-Based Version of the RTTOV Fast Radiative Transfer Model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018 , 123, 5741-5761	4.4	7
53	MIPAS observations of ozone in the middle atmosphere. <i>Atmospheric Measurement Techniques</i> , 2018 , 11, 2187-2212	4	7
52	Spatial and Temporal Structure of the Tertiary Ozone Maximum in the Polar Winter Mesosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018 , 123, 4373-4389	4.4	7
51	Evidence of non-LTE in the CO ₂ 15 μ m weak bands from ISAMS and WINDII observations. <i>Geophysical Research Letters</i> , 1997 , 24, 361-364	4.9	7
50	Modelling of the non-LTE populations of thenitricacid and methane vibrational states in themiddleatmosphere. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 1998 , 60, 1631-1647	2	7
49	Early IMK/IAA MIPAS/ENVISAT results 2003 , 4882, 184		7
48	Comparisons of MIPAS/ENVISAT ozone profiles with SMR/ODIN and HALOE/UARS observations. <i>Advances in Space Research</i> , 2005 , 36, 927-931	2.4	7
47	Gravity waves from five simultaneous emissions: OH (6 μ), NaD, O ₂ (1 μ) OI μ 57.7 nm, and the visible continuum. <i>Canadian Journal of Physics</i> , 1985 , 63, 592-599	1.1	7

46	Global distributions of CO ₂ volume mixing ratio in the middle and upper atmosphere from daytime MIPAS high-resolution spectra. <i>Atmospheric Measurement Techniques</i> , 2016 , 9, 6081-6100	4	7
45	Do vibrationally excited OH molecules affect middle and upper atmospheric chemistry?. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 9953-9964	6.8	6
44	Ozone profile retrieval from limb scatter measurements in the HARTLEY bands: further retrieval details and profile comparisons. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 2509-2517	6.8	6
43	NO ⁺ fundamental and first hot ro-vibrational line frequencies from MIPAS/Envisat atmospheric spectra. <i>Journal of Molecular Spectroscopy</i> , 2006 , 237, 218-224	1.3	6
42	Impact of non-LTE processes on middle atmospheric water vapor retrievals from simulated measurements of 6.8 h Earth limb emission. <i>Geophysical Research Letters</i> , 2002 , 29, 2-1-2-4	4.9	6
41	Non-LTE state distribution of nitric oxide and its impact on the retrieval of the stratospheric daytime no profile from MIPAS limb sounding instruments. <i>Advances in Space Research</i> , 2000 , 26, 947-950	4	6
40	Variability of NO _x in the polar middle atmosphere from October 2003 to March 2004: vertical transport versus local production by energetic particles		6
39	Discriminating between hazy and clear hot-Jupiter atmospheres with CARMENES. <i>Astronomy and Astrophysics</i> , 2020 , 643, A24	5.1	6
38	Evidence of energy-, recombination-, and photon-limited escape regimes in giant planet H/He atmospheres. <i>Astronomy and Astrophysics</i> , 2021 , 648, L7	5.1	6
37	Climatology of CH ₄ , HCN and C ₂ H ₂ in Titan's upper atmosphere from Cassini/VIMS observations. <i>Icarus</i> , 2019 , 331, 83-97	3.8	5
36	Semidiurnal tidal activity of the middle atmosphere at mid-latitudes derived from O ₂ atmospheric and OH(6-2) airglow SATI observations. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2017 , 164, 116-126	2	5
35	Evidence for N ₂ O B 4.5 h non-local thermodynamic equilibrium emission in the atmosphere. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	5
34	The heating efficiency of the exothermic reaction H ₂ +O ₃ in the mesosphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 12739-12747	4.4	4
33	Meteorological results from the Global Mars Multiscale Model at the Viking 1 lander site. <i>Advances in Space Research</i> , 2005 , 36, 2169-2175	2.4	4
32	The detection of the hydroxyl nightglow layer in the mesosphere by ISAMS/UARS. <i>Geophysical Research Letters</i> , 1998 , 25, 2417-2420	4.9	4
31	Comparison of line-by-line and curtis matrix calculations for the vibrational temperatures and radiative cooling of the CO ₂ 15 h bands in the middle and upper atmosphere. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 1994 , 52, 409-423	2.1	4
30	On the improved stability of the version 7 MIPAS ozone record. <i>Atmospheric Measurement Techniques</i> , 2018 , 11, 4693-4705	4	4
29	MIPAS observations of longitudinal oscillations in the mesosphere and the lower thermosphere: climatology of odd-parity daily frequency modes. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 11019-11041	6.8	3

28	CO concentration in the upper stratosphere and mesosphere of Titan from VIMS dayside limb observations at 4.7 μm . <i>Icarus</i> , 2017 , 293, 119-131	3.8	3
27	The science of EChO. <i>Proceedings of the International Astronomical Union</i> , 2010 , 6, 359-370	0.1	3
26	Comparisons of MIPAS-observed temperature profiles with other satellite measurements 2004 ,		3
25	Comparison of GPS/SAC-C and MIPAS/ENVISAT Temperature Profiles and Its Possible Implementation for EOS MLS Observations 2005 , 573-578		3
24	IMK/IAA MIPAS temperature retrieval version 8: nominal measurements. <i>Atmospheric Measurement Techniques</i> , 2021 , 14, 4111-4138	4	3
23	Spectroscopy, gas kinetics, and opacity of thermospheric nitric oxide and implications for analysis of SABER infrared emission measurements at 5.3 μm . <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2021 , 268, 107609	2.1	3
22	Aerosols and Water Ice in Jupiter's Stratosphere from UV-NIR Ground-based Observations. <i>Astronomical Journal</i> , 2018 , 156, 169	4.9	3
21	First Detection of a Brief Mesoscale Elevated Stratopause in Very Early Winter. <i>Geophysical Research Letters</i> , 2020 , 47, e2019GL086751	4.9	2
20	Comparison of nitric oxide measurements in the mesosphere and lower thermosphere from ACE-FTS, MIPAS, SCIAMACHY, and SMR 2014 ,		2
19	Ten years of MIPAS measurements with ESA Level 2 processor V6 [Part I: retrieval algorithm and diagnostics of the products 2013 ,		2
18	The global picture of the atmospheric composition provided by MIPAS on Envisat 2012 ,		2
17	Thermospheric infrared radiance response to the April 2002 geomagnetic storm from SABER infrared and GUVI ultraviolet limb data 2004 ,		2
16	Non-LTE studies for the analysis of MIPAS/ENVISAT data 2002 ,		2
15	New non-LTE retrieval method for atmospheric parameters from MIPAS/ENVISAT emission spectra at 5.3 μm 2002 , 4539, 396		2
14	MIPAS observations of longitudinal oscillations in the mesosphere and the lower thermosphere: Part 1. Climatology of odd-parity daily frequency modes		2
13	Level 2 processor and auxiliary data for ESA Version 8 final full mission analysis of MIPAS measurements on ENVISAT		2
12	Correlation between ISAMS and ATMOS measurements of co in the middle atmosphere. <i>Advances in Space Research</i> , 1998 , 22, 1517-1520	2.4	1
11	Evidences of non-LTE emission in the ISAMS water vapour channels. <i>Advances in Space Research</i> , 1998 , 22, 1513-1516	2.4	1

10	Comparisons of MIPAS/ENVISAT and GPS-RO/CHAMP Temperatures 2005 , 567-572		1
9	Stratospheric and mesospheric carbon monoxide. First results from the validation of the isams measurements at 4.6 h. <i>Advances in Space Research</i> , 1994 , 14, 233-236	2.4	1
8	Middle atmospheric changes caused by the January and March 2012 solar proton events		1
7	The Impact of Energetic Particle Precipitation on the Earth's Atmosphere. <i>Thirty Years of Astronomical Discovery With UKIRT</i> , 2010 , 181-189	0.3	1
6	Improving the Understanding of CrIS Full Spectral Resolution Nonlocal Thermodynamic Equilibrium Radiances Using Spectral Correlation. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020 , 125, e2020JD032710	4.6	1
5	CO ₂ retrievals in the Mars daylight thermosphere from its 4.3 h limb emission measured by OMEGA/MEX. <i>Icarus</i> , 2021 , 353, 113830	3.8	1
4	Remote Sensing of the Non-LTE Atmosphere 2006 , 87-106		1
3	The ESA MIPAS/Envisat level2-v8 dataset: 10 years of measurements retrieved with ORM v8.22. <i>Atmospheric Measurement Techniques</i> , 2021 , 14, 7975-7998	4	1
2	Level2 processor and auxiliary data for ESA Version 8 final full mission analysis of MIPAS measurements on ENVISAT. <i>Atmospheric Measurement Techniques</i> , 2022 , 15, 1871-1901	4	0
1	The NIR transmission spectrum of Jupiter from the observation of a Ganymede eclipse. <i>EPJ Web of Conferences</i> , 2015 , 101, 06048	0.3	