

Manuel LÃ³pez-Puertas

List of Publications by Year in descending order

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225
papers

9,301
citations

43973

48
h-index

62479

80
g-index

259
all docs

259
docs citations

259
times ranked

4784
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | MIPAS: an instrument for atmospheric and climate research. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 2151-2188. | 1.9 | 596 |
| 2 | 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, . | 3.3 | 369 |
| 3 | Retrieval of mesospheric and lower thermospheric kinetic temperature from measurements of CO ₂ 15 Åµm Earth Limb Emission under non-LTE conditions. <i>Geophysical Research Letters</i> , 2001, 28, 1391-1394. | 1.5 | 241 |
| 4 | 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. | 1.9 | 181 |
| 5 | 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, . | 1.5 | 174 |
| 6 | MIPAS level 2 operational analysis. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 5605-5630. | 1.9 | 174 |
| 7 | Ground-based detection of an extended helium atmosphere in the Saturn-mass exoplanet WASP-69b. <i>Science</i> , 2018, 362, 1388-1391. | 6.0 | 174 |
| 8 | The CARMENES search for exoplanets around M dwarfs. <i>Astronomy and Astrophysics</i> , 2018, 612, A49. | 2.1 | 173 |
| 9 | Short- and medium-term atmospheric constituent effects of very large solar proton events. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 765-785. | 1.9 | 156 |
| 10 | 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. | 1.9 | 145 |
| 11 | 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, . | 3.3 | 132 |
| 12 | 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, . | 3.3 | 131 |
| 13 | The natural thermostat of nitric oxide emission at 5.3 Åµm in the thermosphere observed during the solar storms of April 2002. <i>Geophysical Research Letters</i> , 2003, 30, . | 1.5 | 123 |
| 14 | 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. | 2.1 | 120 |
| 15 | No detection of methane on Mars from early ExoMars Trace Gas Orbiter observations. <i>Nature</i> , 2019, 568, 517-520. | 13.7 | 111 |
| 16 | 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. | 1.9 | 107 |
| 17 | Martian dust storm impact on atmospheric H ₂ O and D/H observed by ExoMars Trace Gas Orbiter. <i>Nature</i> , 2019, 568, 521-525. | 13.7 | 107 |
| 18 | LARGE ABUNDANCES OF POLYCYCLIC AROMATIC HYDROCARBONS IN TITAN'S UPPER ATMOSPHERE. <i>Astrophysical Journal</i> , 2013, 770, 132. | 1.6 | 106 |

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|----|--|-----|-----------|
| 19 | Energy transport in the thermosphere during the solar storms of April 2002. <i>Journal of Geophysical Research</i> , 2005, 110, . | 3.3 | 105 |
| 20 | Global distribution of mean age of stratospheric air from MIPAS SF<sub>6</sub> measurements. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 677-695. | 1.9 | 105 |
| 21 | The CARMENES search for exoplanets around M dwarfs. <i>Astronomy and Astrophysics</i> , 2018, 609, A117. | 2.1 | 103 |
| 22 | 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, . | 3.3 | 102 |
| 23 | 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, . | 3.3 | 99 |
| 24 | EChO. <i>Experimental Astronomy</i> , 2012, 34, 311-353. | 1.6 | 98 |
| 25 | 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. | 3.7 | 95 |
| 26 | 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. | 1.2 | 90 |
| 27 | 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, . | 3.3 | 84 |
| 28 | 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. | 0.9 | 80 |
| 29 | Evidence for dynamical coupling from the lower atmosphere to the thermosphere during a major stratospheric warming. <i>Geophysical Research Letters</i> , 2010, 37, . | 1.5 | 80 |
| 30 | 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. | 1.9 | 77 |
| 31 | Science objectives and performances of NOMAD, a spectrometer suite for the ExoMars TGO mission. <i>Planetary and Space Science</i> , 2015, 119, 233-249. | 0.9 | 77 |
| 32 | 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. | 1.2 | 75 |
| 33 | 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. | 0.9 | 71 |
| 34 | 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. | 1.9 | 71 |
| 35 | 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, . | 3.3 | 69 |
| 36 | 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. | 1.2 | 66 |

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|----|---|-----|-----------|
| 37 | Validation of NO ₂ and NO from the Atmospheric Chemistry Experiment (ACE). Atmospheric Chemistry and Physics, 2008, 8, 5801-5841. | 1.9 | 64 |
| 38 | 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 |
| 39 | Satellite observations of ozone in the upper mesosphere. Journal of Geophysical Research D: Atmospheres, 2013, 118, 5803-5821. | 1.2 | 63 |
| 40 | Neutral atmospheric composition between 60 and 220 km: A theoretical model for mid-latitudes. Planetary and Space Science, 1986, 34, 723-743. | 0.9 | 62 |
| 41 | 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. Journal of Atmospheric and Solar-Terrestrial Physics, 1986, 48, 749-764. | 0.9 | 60 |
| 42 | Non-local thermodynamic equilibrium studies of the 15 μ m bands of CO ₂ for atmospheric remote sensing. Journal of Geophysical Research, 1993, 98, 14955-14977. | 3.3 | 60 |
| 43 | GRANADA: A Generic RAdiative traNsfer AnD non-LTE population algorithm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1771-1817. | 1.1 | 60 |
| 44 | CARMENES: an overview six months after first light. Proceedings of SPIE, 2016, , . | 0.8 | 59 |
| 45 | ALMA Discovery of Dust Belts around Proxima Centauri. Astrophysical Journal Letters, 2017, 850, L6. | 3.0 | 59 |
| 46 | A blind test retrieval experiment for infrared limb emission spectrometry. Journal of Geophysical Research, 2003, 108, . | 3.3 | 57 |
| 47 | Validation of MIPAS-ENVISAT NO ₂ operational data. Atmospheric Chemistry and Physics, 2007, 7, 3261-3284. | 1.9 | 57 |
| 48 | SABER observations of mesospheric ozone during NH late winter 2002-2009. Geophysical Research Letters, 2009, 36, . | 1.5 | 57 |
| 49 | Multiple water band detections in the CARMENES near-infrared transmission spectrum of HD 189733 b. Astronomy and Astrophysics, 2019, 621, A74. | 2.1 | 57 |
| 50 | Analysis of the upper atmosphere CO ₂ (<i>v</i> ₂) vibrational temperatures retrieved from ATMOS/Spacelab 3 observations. Journal of Geophysical Research, 1992, 97, 20469-20478. | 3.3 | 55 |
| 51 | 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 |
| 52 | HEPPA-II model-measurement intercomparison project: EPP indirect effects during the dynamically perturbed NH winter 2008-2009. Atmospheric Chemistry and Physics, 2017, 17, 3573-3604. | 1.9 | 55 |
| 53 | Kinetic temperature and carbon dioxide from broadband infrared limb emission measurements taken from the TIMED/SABER instrument. Advances in Space Research, 2009, 43, 15-27. | 1.2 | 53 |
| 54 | 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. Journal of Geophysical Research, 1998, 103, 16799-16811. | 3.3 | 52 |

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|----|---|-----|-----------|
| 55 | An enhanced HNO ₃ second maximum in the Antarctic midwinter upper stratosphere 2003. <i>Journal of Geophysical Research</i> , 2005, 110, . | 3.3 | 52 |
| 56 | Local thermodynamic equilibrium of carbon dioxide in the upper atmosphere. <i>Geophysical Research Letters</i> , 1992, 19, 589-592. | 1.5 | 49 |
| 57 | A new non-LTE retrieval method for atmospheric parameters from mipas-envisat emission spectra. <i>Advances in Space Research</i> , 2001, 27, 1099-1104. | 1.2 | 49 |
| 58 | Retrieval of stratospheric ozone profiles from MIPAS/ENVISAT limb emission spectra: a sensitivity study. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 2767-2781. | 1.9 | 49 |
| 59 | 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. | 2.1 | 49 |
| 60 | 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. | 3.3 | 46 |
| 61 | The CARMENES search for exoplanets around M dwarfs. <i>Astronomy and Astrophysics</i> , 2018, 609, L5. | 2.1 | 46 |
| 62 | Non-LTE Infrared Emissions of CO ₂ in the Atmosphere of Venus. <i>Icarus</i> , 2000, 147, 11-25. | 1.1 | 45 |
| 63 | 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. | 2.1 | 45 |
| 64 | 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. | 1.1 | 45 |
| 65 | Validation of Thermosphere Ionosphere Mesosphere Energetics and Dynamics/Sounding of the Atmosphere using Broadband Emission Radiometry (TIMED/SABER) v1.07 ozone at 9.6 µm in altitude range 15–70 km. <i>Journal of Geophysical Research</i> , 2009, 114, . | 3.3 | 45 |
| 66 | An unidentified emission in Titan's upper atmosphere. <i>Geophysical Research Letters</i> , 2013, 40, 1489-1493. | 1.5 | 44 |
| 67 | Energetic particle precipitation: A major driver of the ozone budget in the Antarctic upper stratosphere. <i>Geophysical Research Letters</i> , 2016, 43, 3554-3562. | 1.5 | 42 |
| 68 | A review of CO ₂ and CO abundances in the middle atmosphere. <i>Geophysical Monograph Series</i> , 2000, , 83-100. | 0.1 | 41 |
| 69 | The solar proton events in 2012 as observed by MIPAS. <i>Geophysical Research Letters</i> , 2013, 40, 2339-2343. | 1.5 | 41 |
| 70 | Increasing carbon dioxide concentration in the upper atmosphere observed by SABER. <i>Geophysical Research Letters</i> , 2015, 42, 7194-7199. | 1.5 | 41 |
| 71 | Middle atmospheric changes caused by the January and March 2012 solar proton events. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 1025-1038. | 1.9 | 40 |
| 72 | Carbon dioxide 4.3 µm 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, 13045-13068. | 3.3 | 39 |

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| 73 | 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. | 3.3 | 39 |
| 74 | Validation of measurements of carbon monoxide from the improved stratospheric and mesospheric sounder. <i>Journal of Geophysical Research</i> , 1996, 101, 9929-9955. | 3.3 | 39 |
| 75 | About the increase of HNO ₃ in the stratopause region during the Halloween 2003 solar proton event. <i>Geophysical Research Letters</i> , 2008, 35, . | 1.5 | 39 |
| 76 | Hemispheric distributions and interannual variability of NO _x produced by energetic particle precipitation in 2002–2012. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 13,565. | 1.2 | 39 |
| 77 | 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, . | 3.3 | 38 |
| 78 | 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. | 0.9 | 38 |
| 79 | CARMENES: high-resolution spectra and precise radial velocities in the red and infrared. , 2018, , . | | 37 |
| 80 | 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. | 1.5 | 36 |
| 81 | Non-local thermodynamic equilibrium model for H ₂ O 6.3 and 2.7- $\hat{1}$ / ₄ m bands in the middle atmosphere. <i>Journal of Geophysical Research</i> , 1995, 100, 9131. | 3.3 | 35 |
| 82 | Remote sensing of the middle atmosphere with MIPAS. , 2003, , . | | 35 |
| 83 | Analysis of non-LTE emissions at in the Martian atmosphere as observed by PFS/Mars Express and SWS/ISO. <i>Planetary and Space Science</i> , 2005, 53, 1079-1087. | 0.9 | 35 |
| 84 | Radiative Energy Balance of CO ₂ Non-LTE Infrared Emissions in the Martian Atmosphere. <i>Icarus</i> , 1995, 114, 113-129. | 1.1 | 34 |
| 85 | 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. | 1.2 | 34 |
| 86 | 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. | 0.6 | 33 |
| 87 | 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. | 1.9 | 33 |
| 88 | 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. | 3.0 | 33 |
| 89 | Distinguishing between Wet and Dry Atmospheres of TRAPPIST-1 e and f. <i>Astrophysical Journal</i> , 2020, 901, 126. | 1.6 | 33 |
| 90 | Non local thermodynamic equilibrium (LTE) atmospheric limb emission at 4.6 $\hat{1}$ / ₄ m: 1. An update of the CO ₂ non-LTE radiative transfer model. <i>Journal of Geophysical Research</i> , 1998, 103, 8499-8513. | 3.3 | 32 |

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| 91 | NOy 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, . | 3.3 | 32 |
| 92 | 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. | 0.8 | 32 |
| 93 | Methane on Mars: New insights into the sensitivity of CH4 with the NOMAD/ExoMars spectrometer through its first in-flight calibration. <i>Icarus</i> , 2019, 321, 671-690. | 1.1 | 32 |
| 94 | Evidence for an OH(\tilde{v}) excitation mechanism of CO ₂ 4.3 μ m nighttime emission from SABER/TIMED measurements. <i>Journal of Geophysical Research</i> , 2004, 109, . | 3.3 | 31 |
| 95 | Validation of nitric acid retrieved by the IMK-IAA processor from MIPAS/ENVISAT measurements. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 721-738. | 1.9 | 31 |
| 96 | The ECHO science case. <i>Experimental Astronomy</i> , 2015, 40, 329-391. | 1.6 | 31 |
| 97 | Expected performances of the NOMAD/ExoMars instrument. <i>Planetary and Space Science</i> , 2016, 124, 94-104. | 0.9 | 31 |
| 98 | Distribution of HCN in Titan's upper atmosphere from Cassini/VIMS observations at 3 μ m. <i>Icarus</i> , 2011, 214, 584-595. | 1.1 | 30 |
| 99 | On the quality of MIPAS kinetic temperature in the middle atmosphere. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 6009-6039. | 1.9 | 30 |
| 100 | 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. | 1.2 | 30 |
| 101 | The Stratospheric and Mesospheric NOy in the 2002-2004 Polar Winters as measured by MIPAS/ENVISAT. <i>Space Science Reviews</i> , 2007, 125, 403-416. | 3.7 | 29 |
| 102 | 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. | 3.3 | 28 |
| 103 | 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. | 1.1 | 28 |
| 104 | Cross-validation of MIPAS/ENVISAT and GPS-RO/CHAMP temperature profiles. <i>Journal of Geophysical Research</i> , 2004, 109, . | 3.3 | 27 |
| 105 | Modelling the He I triplet absorption at 10 830 \AA in the atmospheres of HD 189733 b and GJ 3470 b. <i>Astronomy and Astrophysics</i> , 2021, 647, A129. | 2.1 | 27 |
| 106 | Nonlocal thermodynamic equilibrium vibrational, rotational, and spin state distribution of NO(\tilde{v} = 0, 1). <i>Journal of Geophysical Research</i> , 2004, 109, . | 3.3 | 26 |
| 107 | Vibrationally excited ozone in the middle atmosphere. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2006, 68, 202-212. | 0.6 | 26 |
| 108 | Fast forward radiative transfer modeling of 4.3 μ m nonlocal thermodynamic equilibrium effects for infrared temperature sounders. <i>Geophysical Research Letters</i> , 2007, 34, . | 1.5 | 26 |

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|-----|---|-----|-----------|
| 109 | 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. | 1.9 | 26 |
| 110 | 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. | 1.2 | 26 |
| 111 | Optical and radiometric models of the NOMAD instrument part I: the UVIS channel. <i>Optics Express</i> , 2015, 23, 30028. | 1.7 | 26 |
| 112 | Optical and radiometric models of the NOMAD instrument part II: the infrared channels - SO and LNO. <i>Optics Express</i> , 2016, 24, 3790. | 1.7 | 25 |
| 113 | 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. | 1.0 | 25 |
| 114 | Non local thermodynamic equilibrium (LTE) atmospheric limb emission at 4.6 μ m: 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. | 3.3 | 23 |
| 115 | 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, . | 3.3 | 23 |
| 116 | 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, . | 3.3 | 23 |
| 117 | Enhancement of N ₂ O during the October–November 2003 solar proton events. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 3805-3815. | 1.9 | 23 |
| 118 | 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. | 1.9 | 23 |
| 119 | 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. | 0.6 | 22 |
| 120 | Non-local thermodynamic equilibrium limb radiance near 10 μ m as measured by UARS CLAES. <i>Journal of Geophysical Research</i> , 1996, 101, 26577-26588. | 3.3 | 22 |
| 121 | Intercomparison of radiative transfer codes under non-local thermodynamic equilibrium conditions. <i>Journal of Geophysical Research</i> , 2002, 107, ACH 12-1. | 3.3 | 22 |
| 122 | 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. | 1.2 | 22 |
| 123 | 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, . | 1.5 | 22 |
| 124 | Analysis of Titan CH ₄ 3.3 μ m upper atmospheric emission as measured by Cassini/VIMS. <i>Icarus</i> , 2011, 214, 571-583. | 1.1 | 22 |
| 125 | Retrieval of stratospheric and mesospheric O ₃ from high resolution MIPAS spectra at 15 and 10 μ m. <i>Advances in Space Research</i> , 2005, 36, 943-951. | 1.2 | 21 |
| 126 | Satellite Measurements of Middle Atmospheric Impacts by Solar Proton Events in Solar Cycle 23. <i>Space Science Reviews</i> , 2007, 125, 381-391. | 3.7 | 21 |

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|-----|--|-----|-----------|
| 127 | 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. | 3.3 | 20 |
| 128 | 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. | 0.3 | 20 |
| 129 | Chemical heating rates derived from SCIAMACHY vibrationally excited OH limb emission spectra. <i>Advances in Space Research</i> , 2008, 41, 1914-1920. | 1.2 | 20 |
| 130 | Modeling the atmospheric limb emission of CO ₂ at 4.3 μ m in the terrestrial planets. <i>Planetary and Space Science</i> , 2011, 59, 988-998. | 0.9 | 20 |
| 131 | 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. | 1.2 | 20 |
| 132 | A semi-empirical model for mesospheric and stratospheric NO _x produced by energetic particle precipitation. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 8667-8693. | 1.9 | 20 |
| 133 | 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. | 0.8 | 20 |
| 134 | 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. | 0.9 | 19 |
| 135 | Rocket measurements of O ₂ infrared atmospheric system in the nightglow. <i>Planetary and Space Science</i> , 1988, 36, 459-467. | 0.9 | 19 |
| 136 | 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. | 3.3 | 19 |
| 137 | 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. | 1.1 | 19 |
| 138 | Impact of January 2005 solar proton events on chlorine species. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 4159-4179. | 1.9 | 19 |
| 139 | Titan Science with the <i>James Webb Space Telescope</i> . <i>Publications of the Astronomical Society of the Pacific</i> , 2016, 128, 018007. | 1.0 | 19 |
| 140 | Evidence of energy-, recombination-, and photon-limited escape regimes in giant planet H/He atmospheres. <i>Astronomy and Astrophysics</i> , 2021, 648, L7. | 2.1 | 19 |
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