Maya Garcia-Comas

List of Publications by Year
in descending order

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69	2,424	236612	223531
papers	citations	25 h-index	46 g-index

96	96	96	2109
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Assessment of the quality of the Version 1.07 temperatureâ€versusâ€pressure profiles of the middle atmosphere from TIMED/SABER. Journal of Geophysical Research, 2008, 113, .	3.3	369
2	No detection of methane on Mars from early ExoMars Trace Gas Orbiter observations. Nature, 2019, 568, 517-520.	13.7	111
3	Martian dust storm impact on atmospheric H2O and D/H observed by ExoMars Trace Gas Orbiter. Nature, 2019, 568, 521-525.	13.7	107
4	LARGE ABUNDANCES OF POLYCYCLIC AROMATIC HYDROCARBONS IN TITAN'S UPPER ATMOSPHERE. Astrophysical Journal, 2013, 770, 132.	1.6	106
5	Errors in Sounding of the Atmosphere using Broadband Emission Radiometry (SABER) kinetic temperature caused by nonâ€localâ€thermodynamicâ€equilibrium model parameters. Journal of Geophysical Research, 2008, 113, .	3.3	99
6	NOMAD, an Integrated Suite of Three Spectrometers for the ExoMars Trace Gas Mission: Technical Description, Science Objectives and Expected Performance. Space Science Reviews, 2018, 214, 1.	3.7	95
7	Evidence for dynamical coupling from the lower atmosphere to the thermosphere during a major stratospheric warming. Geophysical Research Letters, 2010, 37, .	1.5	80
8	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.	1.9	77
9	Science objectives and performances of NOMAD, a spectrometer suite for the ExoMars TGO mission. Planetary and Space Science, 2015, 119, 233-249.	0.9	77
10	Validation of MIPAS IMK/IAA temperature, water vapor, and ozone profiles with MOHAVE-2009 campaign measurements. Atmospheric Measurement Techniques, 2012, 5, 289-320.	1.2	74
11	Variability of the Martian thermosphere during eight Martian years as simulated by a ground-to-exosphere global circulation model. Journal of Geophysical Research E: Planets, 2015, 120, 2020-2035.	1.5	67
12	Satellite observations of ozone in the upper mesosphere. Journal of Geophysical Research D: Atmospheres, 2013, 118, 5803-5821.	1.2	63
13	GRANADA: A Generic RAdiative traNsfer AnD non-LTE population algorithm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1771-1817.	1.1	60
14	SABER observations of mesospheric ozone during NH late winter 2002â€“2009. Geophysical Research Letters, 2009, 36, .	1.5	57
15	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
16	An unidentified emission in Titan's upper atmosphere. Geophysical Research Letters, 2013, 40, 1489-1493.	1.5	44
17	Tidal variations of O₂ Atmospheric and OH(6-2) airglow and temperature at mid-latitudes from SATI observations. Annales Geophysicae, 2005, 23, 3579-3590.	0.6	37
18	Remote sensing of the middle atmosphere with MIPAS. , 2003, , .		35

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19	Ground-based mesospheric temperatures at mid-latitude derived from O2 and OH airglow SATI data: Comparison with SABER measurements. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 2379-2390.	0.6	33
20	Methane on Mars: New insights into the sensitivity of CH4 with the NOMAD/ExoMars spectrometer through its first in-flight calibration. Icarus, 2019, 321, 671-690.	1.1	32
21	Evidence for an OH(Ï...) excitation mechanism of CO24.3 Î¼m nighttime emission from SABER/TIMED measurements. Journal of Geophysical Research, 2004, 109, .	3.3	31
22	Observations of atmospheric water vapor above the Tharsis volcanoes on Mars with the OMEGA/MEx imaging spectrometer. Icarus, 2008, 194, 53-64.	1.1	31
23	Expected performances of the NOMAD/ExoMars instrument. Planetary and Space Science, 2016, 124, 94-104.	0.9	31
24	Climatology of planetary wave type oscillations with periods of 2â€“20 days derived from O₂ atmospheric and OH(6-2) airglow observations at mid-latitude with SATI. Annales Geophysicae, 2009, 27, 3645-3662.	0.6	30
25	Distribution of HCN in Titanâ€™s upper atmosphere from Cassini/VIMS observations at 3Î¼m. Icarus, 2011, 214, 584-595.	1.1	30
26	On the quality of MIPAS kinetic temperature in the middle atmosphere. Atmospheric Chemistry and Physics, 2012, 12, 6009-6039.	1.9	30
27	MIPAS temperature from the stratosphere to the lower thermosphere: Comparison of vM21 with ACE-FTS, MLS, OSIRIS, SABER, SOFIE and lidar measurements. Atmospheric Measurement Techniques, 2014, 7, 3633-3651.	1.2	30
28	Vibrationally excited ozone in the middle atmosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 202-212.	0.6	26
29	Mesospheric N₂O enhancements as observed by MIPAS on Envisat during the polar winters in 2002â€“2004. Atmospheric Chemistry and Physics, 2008, 8, 5787-5800.	1.9	26
30	Optical and radiometric models of the NOMAD instrument part I: the UVIS channel. Optics Express, 2015, 23, 30028.	1.7	26
31	Optical and radiometric models of the NOMAD instrument part II: the infrared channels - SO and LNO. Optics Express, 2016, 24, 3790.	1.7	25
32	The SPARC water vapour assessment II: comparison of annual, semi-annual and quasi-biennial variations in stratospheric and lower mesospheric water vapour observed from satellites. Atmospheric Measurement Techniques, 2017, 10, 1111-1137.	1.2	24
33	Enhancement of N₂O during the Octoberâ€“November 2003 solar proton events. Atmospheric Chemistry and Physics, 2008, 8, 3805-3815.	1.9	23
34	Daytime SABER/TIMED observations of water vapor in the mesosphere: retrieval approach and first results. Atmospheric Chemistry and Physics, 2009, 9, 8139-8158.	1.9	23
35	Analysis of Titan CH4 3.3Î¼m upper atmospheric emission as measured by Cassini/VIMS. Icarus, 2011, 214, 571-583.	1.1	22
36	Retrieval of stratospheric and mesospheric O3 from high resolution MIPAS spectra at 15 and 10 Î¼m. Advances in Space Research, 2005, 36, 943-951.	1.2	21

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37	Modeling the atmospheric limb emission of CO2 at 4.3 Î¼m in the terrestrial planets. Planetary and Space Science, 2011, 59, 988-998.	0.9	20
38	Dust haze in Valles Marineris observed by HRSC and OMEGA on board Mars Express. Journal of Geophysical Research, 2008, 113, .	3.3	18
39	Retrieving optical depth from shadows in orbiter images of Mars. Icarus, 2011, 214, 447-461.	1.1	17
40	Measurements of polar mesospheric clouds in infrared emission by MIPAS/ENVISAT. Journal of Geophysical Research, 2009, 114, .	3.3	15
41	Optical depth and its scale-height in Valles Marineris from HRSC stereo images. Earth and Planetary Science Letters, 2010, 294, 534-540.	1.8	14
42	Nighttime ozone variability in the high latitude winter mesosphere. Journal of Geophysical Research D: Atmospheres, 2014, 119, 13,547.	1.2	14
43	Validation of the MIPAS CO₂ volume mixing ratio in the mesosphere and lower thermosphere and comparison with WACCM simulations. Journal of Geophysical Research D: Atmospheres, 2017, 122, 8345-8366.	1.2	14
44	The SPARC water vapor assessment II: intercomparison of satellite and ground-based microwave measurements. Atmospheric Chemistry and Physics, 2017, 17, 14543-14558.	1.9	13
45	Investigations of the Mars Upper Atmosphere with ExoMars Trace Gas Orbiter. Space Science Reviews, 2018, 214, 1.	3.7	13
46	UV Dayglow Variability on Mars: Simulation With a Global Climate Model and Comparison With SPICAM/MEx Data. Journal of Geophysical Research E: Planets, 2018, 123, 1934-1952.	1.5	13
47	The SPARC water vapour assessment II: profile-to-profile comparisons of stratospheric and lower mesospheric water vapour data sets obtained from satellites. Atmospheric Measurement Techniques, 2019, 12, 2693-2732.	1.2	13
48	IMK/IAA MIPAS temperature retrieval version 8: nominal measurements. Atmospheric Measurement Techniques, 2021, 14, 4111-4138.	1.2	13
49	The SPARC water vapour assessment II: comparison of stratospheric and lower mesospheric water vapour time series observed from satellites. Atmospheric Measurement Techniques, 2018, 11, 4435-4463.	1.2	12
50	MIPAS observations of ozone in the middle atmosphere. Atmospheric Measurement Techniques, 2018, 11, 2187-2212.	1.2	11
51	Impacts of the January 2005 solar particle event on noctilucent clouds and water at the polar summer mesopause. Atmospheric Chemistry and Physics, 2012, 12, 5633-5646.	1.9	10
52	Vibrationalâ€vibrational and vibrationalâ€thermal energy transfers of CO 2 with N 2 from MIPAS highâ€resolution limb spectra. Journal of Geophysical Research D: Atmospheres, 2015, 120, 8002-8022.	1.2	10
53	Measurements of global distributions of polar mesospheric clouds during 2005â€“2012 by MIPAS/Envisat. Atmospheric Chemistry and Physics, 2016, 16, 6701-6719.	1.9	10
54	Mesospheric OH layer altitude at midlatitudes: variability over the Sierra Nevada Observatory in Granada, Spain (37Â°â€¯N, 3Â°â€¯W). Annales Geophysicae, 2017, 35, 1151-1164.	0.6	10

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55	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
56	Global distributions of CO₂ volume mixing ratio in the middle and upper atmosphere from daytime MIPAS high-resolution spectra. Atmospheric Measurement Techniques, 2016, 9, 6081-6100.	1.2	9
57	Aerosols and Water Ice in Jupiterâ€™s Stratosphere from UV-NIR Ground-based Observations. Astronomical Journal, 2018, 156, 169.	1.9	7
58	MIPAS observations of longitudinal oscillations in the mesosphere and the lower thermosphere: climatology of odd-parity daily frequency modes. Atmospheric Chemistry and Physics, 2016, 16, 11019-11041.	1.9	6
59	CO2 retrievals in the Mars daylight thermosphere from its 4.3â€Î¼m limb emission measured by OMEGA/MEx. Icarus, 2021, 353, 113830.	1.1	6
60	Comparisons of MIPAS-observed temperature profiles with other satellite measurements. , 2004, , .		5
61	Semidiurnal tidal activity of the middle atmosphere at mid-latitudes derived from O2 atmospheric and OH(6-2) airglow SATI observations. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 164, 116-126.	0.6	5
62	Climatology of CH4, HCN and C2H2 in Titan's upper atmosphere from Cassini/VIMS observations. Icarus, 2019, 331, 83-97.	1.1	5
63	First Detection of a Brief Mesoscale Elevated Stratopause in Very Early Winter. Geophysical Research Letters, 2020, 47, e2019GL086751.	1.5	4
64	Gravity wave activity in the middle atmosphere from SATI airglow observations at northern mid-latitude: Seasonal variation and comparison with tidal and planetary wave-like activity. Journal of Atmospheric and Solar-Terrestrial Physics, 2020, 206, 105329.	0.6	4
65	On the derivation of thermospheric temperatures from dayglow emissions on Mars. Icarus, 2021, 358, 114284.	1.1	2
66	The CH4 abundance in Jupiter's upper atmosphere. Astronomy and Astrophysics, 0, , .	2.1	2
67	O2 Atmospheric band and OH(6â€“2) airglow and temperature variability over Spain using SATI observations: Planetary-scale oscillations during autumn. Canadian Journal of Physics, 2007, 85, 153-172.	0.4	1
68	Improvement of Odin/SMR water vapour and temperature measurements and validation of the obtained data sets. Atmospheric Measurement Techniques, 2021, 14, 5823-5857.	1.2	1
69	The Impact of Energetic Particle Precipitation on the Earths Atmosphere. Thirty Years of Astronomical Discovery With UKIRT, 2010, , 181-189.	0.3	1