Jean-Loup Bertaux

List of Publications by Year
in descending order

71 papers	5,685 citations	57758 44 h-index	91884 69 g-index
71 all docs	71 docs citations	71 times ranked	2829 citing authors

#	Article	IF	Citations
1	Isotopic fractionation of water and its photolytic products in the atmosphere of Mars. Nature Astronomy, 2021, 5, 943-950.	10.1	27
2	Climatology of SO2 and UV absorber at Venus' cloud top from SPICAV-UV nadir dataset. Icarus, 2020, 335, 113368.	2.5	50
3	Improved calibrations of the stellar occultation data accumulated by the SPICAV UV onboard Venus Express. Planetary and Space Science, 2020, 184, 104868.	1.7	4
4	Stormy water on Mars: The distribution and saturation of atmospheric water during the dusty season. Science, 2020, 367, 297-300.	12.6	117
5	No detection of methane on Mars from early ExoMars Trace Gas Orbiter observations. Nature, 2019, 568, 517-520.	27.8	111
6	Martian dust storm impact on atmospheric H2O and D/H observed by ExoMars Trace Gas Orbiter. Nature, 2019, 568, 521-525.	27.8	107
7	The Rockyâ€Like Behavior of Cometary Landslides on 67P/Churyumovâ€Gerasimenko. Geophysical Research Letters, 2019, 46, 14336-14346.	4.0	9
8	Discovery of cloud top ozone on Venus. Icarus, 2019, 319, 491-498.	2.5	19
9	Water vapor in the middle atmosphere of Mars during the 2007 global dust storm. Icarus, 2018, 300, 440-457.	2.5	111
10	IUVS echelleâ€mode observations of interplanetary hydrogen: Standard for calibration and reference for cavity variations between Earth and Mars during MAVEN cruise. Journal of Geophysical Research: Space Physics, 2017, 122, 2089-2105.	2.4	16
11	Improved algorithm for the transmittance estimation of spectra obtained with SOIR/Venus Express. Applied Optics, 2016, 55, 9275.	2.1	21
12	The southern hemisphere of 67P/Churyumov-Gerasimenko: Analysis of the preperihelion size-frequency distribution of boulders â‰¥7 m. Astronomy and Astrophysics, 2016, 592, L2.	5.1	27
13	Gas outflow and dust transport of comet 67P/Churyumovâ€“Gerasimenko. Monthly Notices of the Royal Astronomical Society, 2016, 462, S533-S546.	4.4	34
14	Aswan site on comet 67P/Churyumov-Gerasimenko: Morphology, boulder evolution, and spectrophotometry. Astronomy and Astrophysics, 2016, 592, A69.	5.1	53
15	Influence of Venus topography on the zonal wind and UV albedo at cloud top level: The role of stationary gravity waves. Journal of Geophysical Research E: Planets, 2016, 121, 1087-1101.	3.6	60
16	Geomorphological mapping of comet 67P/Churyumovâ€“Gerasimenkoâ€™s Southern hemisphere. Monthly Notices of the Royal Astronomical Society, 2016, 462, S573-S592.	4.4	23
17	SPICAM observations and modeling of Mars aurorae. Icarus, 2016, 264, 398-406.	2.5	52
18	Ten years of Martian nitric oxide nightglow observations. Geophysical Research Letters, 2015, 42, 720-725.	4.0	29

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19	Size-frequency distribution of boulders â‰¥7 m on comet 67P/Churyumov-Gerasimenko. Astronomy and Astrophysics, 2015, 583, A37.	5.1	108
20	A strong seasonal dependence in the Martian hydrogen exosphere. Geophysical Research Letters, 2015, 42, 8678-8685.	4.0	86
21	Measurements of the near-nucleus coma of comet 67P/Churyumov-Gerasimenko with the Alice far-ultraviolet spectrograph on Rosetta. Astronomy and Astrophysics, 2015, 583, A8.	5.1	77
22	Estimate of the erosion rate from H₂O mass-loss measurements from SWAN/SOHO in previous perihelions of comet 67P/Churyumov-Gerasimenko and connection with observed rotation rate variations. Astronomy and Astrophysics, 2015, 583, A38.	5.1	30
23	Dust measurements in the coma of comet 67P/Churyumov-Gerasimenko inbound to the Sun. Science, 2015, 347, aaa3905.	12.6	310
24	On the nucleus structure and activity of comet 67P/Churyumov-Gerasimenko. Science, 2015, 347, aaa1044.	12.6	366
25	The morphological diversity of comet 67P/Churyumov-Gerasimenko. Science, 2015, 347, aaa0440.	12.6	259
26	The CO2 continuum absorption in the 1.10- and 1.18-Î¼m windows on Venus from Maxwell Montes transits by SPICAV IR onboard Venus express. Planetary and Space Science, 2015, 113-114, 66-77.	1.7	23
27	Coordinated Hubble Space Telescope and Venus Express Observations of Venusâ€™ upper cloud deck. Icarus, 2015, 258, 309-336.	2.5	35
28	Large heterogeneities in comet 67P as revealed by active pits from sinkhole collapse. Nature, 2015, 523, 63-66.	27.8	158
29	Two independent and primitive envelopes of the bilobate nucleus of comet 67P. Nature, 2015, 526, 402-405.	27.8	141
30	Search for horizontal and vertical variations of CO in the day and night side lower mesosphere of Venus from CSHELL/IRTF <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0010.gif" overflow="scroll"><mml:mn>4.53</mml:mn><mml:mspace width="0.25em" /><mml:mi mathvariant="normal">Î¼</mml:mi><mml:mi mathvariant="normal">m</mml:mi></mml:math> observations. Planetary and Space Science, 2015, 113-114, 256-263.	1.7	30
31	Preliminary study of Venus cloud layers with polarimetric data from SPICAV/VEx. Planetary and Space Science, 2015, 113-114, 159-168.	1.7	30
32	Marsâ€™ water vapor mapping by the SPICAM IR spectrometer: Five martian years of observations. Icarus, 2015, 251, 50-64.	2.5	90
33	Unexpected variability of Martian hydrogen escape. Geophysical Research Letters, 2014, 41, 314-320.	4.0	137
34	A complete climatology of the aerosol vertical distribution on Mars from MEx/SPICAM UV solar occultations. Icarus, 2013, 223, 892-941.	2.5	64
35	Variations of sulphur dioxide at the cloud top of Venusâ€™s dynamic atmosphere. Nature Geoscience, 2013, 6, 25-28.	12.9	164
36	New nitric oxide (NO) nightglow measurements with SPICAM/MEx as a tracer of Mars upper atmosphere circulation and comparison with LMDâ€MGCM model prediction: Evidence for asymmetric hemispheres. Journal of Geophysical Research E: Planets, 2013, 118, 2172-2179.	3.6	37

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37	Compact echelle spectrometer for occultation sounding of the Martian atmosphere: design and performance. Applied Optics, 2013, 52, 1054.	1.8	17
38	Improved calibration of SOIR/Venus Express spectra. Optics Express, 2013, 21, 21148.	3.4	30
39	First observation of the Venus UV dayglow at limb from SPICAV/VEX. Geophysical Research Letters, 2012, 39, .	4.0	27
40	Vertical profiling of SO2 and SO above Venusâ€™ clouds by SPICAV/SOIR solar occultations. Icarus, 2012, 217, 740-751.	2.5	103
41	Optical extinction due to aerosols in the upper haze of Venus: Four years of SOIR/VEX observations from 2006 to 2010. Icarus, 2012, 217, 875-881.	2.5	54
42	SPICAV IR acousto-optic spectrometer experiment on Venus Express. Planetary and Space Science, 2012, 65, 38-57.	1.7	49
43	Rosetta-Alice observations of exospheric hydrogen and oxygen on Mars. Icarus, 2011, 214, 394-399.	2.5	82
44	The 1.10- and 1.18-Î¼m nightside windows of Venus observed by SPICAV-IR aboard Venus Express. Icarus, 2011, 216, 173-183.	2.5	96
45	An investigation of the SO2 content of the venusian mesosphere using SPICAV-UV in nadir mode. Icarus, 2011, 211, 58-69.	2.5	86
46	NO emissions as observed by SPICAV during stellar occultations. Planetary and Space Science, 2010, 58, 1314-1326.	1.7	21
47	Photolysis of sulphuric acid as the source of sulphur oxides in the mesosphere of Venus. Nature Geoscience, 2010, 3, 834-837.	12.9	75
48	Atomic oxygen distribution in the Venus mesosphere from observations of O2 infrared airglow by VIRTIS-Venus Express. Icarus, 2009, 199, 264-272.	2.5	27
49	Density and temperatures of the upper Martian atmosphere measured by stellar occultations with Mars Express SPICAM. Journal of Geophysical Research, 2009, 114, .	3.3	200
50	First observation of 628 CO2 isotopologue band at 3.3 Î¼m in the atmosphere of Venus by solar occultation from Venus Express. Icarus, 2008, 195, 28-33.	2.5	22
51	Heterogeneous chemistry in the atmosphere of Mars. Nature, 2008, 454, 971-975.	27.8	130
52	In-flight performance and calibration of SPICAV SOIR onboard Venus Express. Applied Optics, 2008, 47, 2252.	2.1	50
53	Martian ice cloud distribution obtained from SPICAM nadir UV measurements. Journal of Geophysical Research, 2007, 112, .	3.3	20
54	SPICAV on Venus Express: Three spectrometers to study the global structure and composition of the Venus atmosphere. Planetary and Space Science, 2007, 55, 1673-1700.	1.7	160

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55	A warm layer in Venus' cryosphere and high-altitude measurements of HF, HCl, H2O and HDO. Nature, 2007, 450, 646-649.	27.8	161
56	Vertical distribution of ozone on Mars as measured by SPICAM/Mars Express using stellar occultations. Journal of Geophysical Research, 2006, 111, .	3.3	90
57	Stellar occultations observed by SPICAM on Mars Express. Journal of Geophysical Research, 2006, 111, .	3.3	97
58	SPICAM on Mars Express: Observing modes and overview of UV spectrometer data and scientific results. Journal of Geophysical Research, 2006, 111, .	3.3	148
59	Observation of O21.27 Î¼m dayglow by SPICAM IR: Seasonal distribution for the first Martian year of Mars Express. Journal of Geophysical Research, 2006, 111, .	3.3	57
60	Mars water vapor abundance from SPICAM IR spectrometer: Seasonal and geographic distributions. Journal of Geophysical Research, 2006, 111, .	3.3	76
61	SPICAM IR acousto-optic spectrometer experiment on Mars Express. Journal of Geophysical Research, 2006, 111, .	3.3	89
62	Subvisible CO2 ice clouds detected in the mesosphere of Mars. Icarus, 2006, 183, 403-410.	2.5	113
63	Global structure and composition of the martian atmosphere with SPICAM on Mars express. Advances in Space Research, 2005, 35, 31-36.	2.6	8
64	Discovery of an aurora on Mars. Nature, 2005, 435, 790-794.	27.8	203
65	Nightglow in the Upper Atmosphere of Mars and Implications for Atmospheric Transport. Science, 2005, 307, 566-569.	12.6	119
66	Compact high-resolution IR spectrometer for atmospheric studies. , 2002, , .		15
67	AOTF-based spectrometer for Mars atmosphere sounding. , 2002, , .		18
68	Isotopic fractionation through water vapor condensation: The Deuteropause, a cold trap for deuterium in the atmosphere of Mars. Journal of Geophysical Research, 2001, 106, 32879-32884.	3.3	48
69	The study of the martian atmosphere from top to bottom with SPICAM light on mars express. Planetary and Space Science, 2000, 48, 1303-1320.	1.7	61
70	VEGA 1 and VEGA 2 entry probes: An investigation of local UV absorption (220-400 nm) in the atmosphere of Venus (SO2aerosols, cloud structure). Journal of Geophysical Research, 1996, 101, 12709-12745.	3.3	100
71	Deuterium content of the Venus atmosphere. Nature, 1989, 338, 567-568.	27.8	18