Franck Montmessin

List of Publications by Year
in descending order

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227 papers	11,654 citations	20817 60 h-index	36028 97 g-index

291 all docs	291 docs citations	291 times ranked	4038 citing authors

#	Article	IF	Citations
1	The Mars Atmosphere and Volatile Evolution (MAVEN) Mission. Space Science Reviews, 2015, 195, 3-48.	8.1	563
2	Formation of Glaciers on Mars by Atmospheric Precipitation at High Obliquity. Science, 2006, 311, 368-371.	12.6	405
3	Origin and role of water ice clouds in the Martian water cycle as inferred from a general circulation model. Journal of Geophysical Research, 2004, 109, .	3.3	274
4	Amazonian northern mid-latitude glaciation on Mars: A proposed climate scenario. Icarus, 2009, 203, 390-405.	2.5	240
5	Loss of the Martian atmosphere to space: Present-day loss rates determined from MAVEN observations and integrated loss through time. Icarus, 2018, 315, 146-157.	2.5	216
6	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
7	Recent ice-rich deposits formed at high latitudes on Mars by sublimation of unstable equatorial ice during low obliquity. Nature, 2004, 431, 1072-1075.	27.8	192
8	The Latitudinal Distribution of Clouds on Titan. Science, 2006, 311, 201-205.	12.6	187
9	Three-dimensional modeling of ozone on Mars. Journal of Geophysical Research, 2004, 109, .	3.3	170
10	MAVEN observations of the response of Mars to an interplanetary coronal mass ejection. Science, 2015, 350, aad0210.	12.6	166
11	Variations of sulphur dioxide at the cloud top of Venusâ€™s dynamic atmosphere. Nature Geoscience, 2013, 6, 25-28.	12.9	164
12	Global climate modeling of the Martian water cycle with improved microphysics and radiatively active water ice clouds. Journal of Geophysical Research E: Planets, 2014, 119, 1479-1495.	3.6	162
13	A warm layer in Venus' cryosphere and high-altitude measurements of HF, HCl, H2O and HDO. Nature, 2007, 450, 646-649.	27.8	161
14	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
15	The SuperCam Instrument Suite on the NASA Mars 2020 Rover: Body Unit and Combined System Tests. Space Science Reviews, 2021, 217, 4.	8.1	160
16	SPICAM on Mars Express: Observing modes and overview of UV spectrometer data and scientific results. Journal of Geophysical Research, 2006, 111, .	3.3	148
17	The Imaging Ultraviolet Spectrograph (IUVS) for the MAVEN Mission. Space Science Reviews, 2015, 195, 75-124.	8.1	139
18	Unexpected variability of Martian hydrogen escape. Geophysical Research Letters, 2014, 41, 314-320.	4.0	137

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19	The SuperCam Instrument Suite on the Mars 2020 Rover: Science Objectives and Mast-Unit Description. Space Science Reviews, 2021, 217, 1.	8.1	131
20	Heterogeneous chemistry in the atmosphere of Mars. Nature, 2008, 454, 971-975.	27.8	130
21	Observations of the south seasonal cap of Mars during recession in 2004â€“2006 by the OMEGA visible/nearâ€infrared imaging spectrometer on board Mars Express. Journal of Geophysical Research, 2007, 112, .	3.3	128
22	Evidence of Water Vapor in Excess of Saturation in the Atmosphere of Mars. Science, 2011, 333, 1868-1871.	12.6	122
23	Global distribution of total ozone on Mars from SPICAM/MEX UV measurements. Journal of Geophysical Research, 2006, 111, .	3.3	120
24	Annual survey of water vapor vertical distribution and waterâ€“aerosol coupling in the martian atmosphere observed by SPICAM/MEx solar occultations. Icarus, 2013, 223, 942-962.	2.5	120
25	The Atmospheric Chemistry Suite (ACS) of Three Spectrometers for the ExoMars 2016 Trace Gas Orbiter. Space Science Reviews, 2018, 214, 1.	8.1	119
26	HDO and H₂O vertical distributions and isotopic ratio in the Venus mesosphere by Solar Occultation at Infrared spectrometer on board Venus Express. Journal of Geophysical Research, 2008, 113, .	3.3	117
27	Stormy water on Mars: The distribution and saturation of atmospheric water during the dusty season. Science, 2020, 367, 297-300.	12.6	117
28	Subvisible CO2 ice clouds detected in the mesosphere of Mars. Icarus, 2006, 183, 403-410.	2.5	113
29	Recent formation and evolution of northern Martian polar layered deposits as inferred from a Global Climate Model. Journal of Geophysical Research, 2007, 112, .	3.3	112
30	Water vapor in the middle atmosphere of Mars during the 2007 global dust storm. Icarus, 2018, 300, 440-457.	2.5	111
31	No detection of methane on Mars from early ExoMars Trace Gas Orbiter observations. Nature, 2019, 568, 517-520.	27.8	111
32	Martian dust storm impact on atmospheric H2O and D/H observed by ExoMars Trace Gas Orbiter. Nature, 2019, 568, 521-525.	27.8	107
33	Vertical profiling of SO2 and SO above Venusâ€™ clouds by SPICAV/SOIR solar occultations. Icarus, 2012, 217, 740-751.	2.5	103
34	Martian water vapor: Mars Express PFS/LW observations. Icarus, 2007, 190, 32-49.	2.5	101
35	Modeling the annual cycle of HDO in the Martian atmosphere. Journal of Geophysical Research, 2005, 110, n/a-n/a.	3.3	100
36	Solar infrared occultation observations by SPICAM experiment on Mars-Express: Simultaneous measurements of the vertical distributions of H2O, CO2 and aerosol. Icarus, 2009, 200, 96-117.	2.5	98

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37	Discovery of diffuse aurora on Mars. Science, 2015, 350, aad0313.	12.6	98
38	The structure and variability of Mars upper atmosphere as seen in MAVEN/IUVS dayglow observations. Geophysical Research Letters, 2015, 42, 9023-9030.	4.0	95
39	Stellar occultations at UV wavelengths by the SPICAM instrument: Retrieval and analysis of Martian haze profiles. Journal of Geophysical Research, 2006, 111, .	3.3	93
40	Vertical distribution of ozone on Mars as measured by SPICAM/Mars Express using stellar occultations. Journal of Geophysical Research, 2006, 111, .	3.3	90
41	Early MAVEN Deep Dip campaign reveals thermosphere and ionosphere variability. Science, 2015, 350, aad0459.	12.6	90
42	Marsâ€™ water vapor mapping by the SPICAM IR spectrometer: Five martian years of observations. Icarus, 2015, 251, 50-64.	2.5	90
43	SPICAM IR acousto-optic spectrometer experiment on Mars Express. Journal of Geophysical Research, 2006, 111, .	3.3	89
44	Composition of the Venus mesosphere measured by Solar Occultation at Infrared on board Venus Express. Journal of Geophysical Research, 2008, 113, .	3.3	86
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	Evidence for a bimodal size distribution for the suspended aerosol particles on Mars. Icarus, 2014, 231, 239-260.	2.5	82
47	Hyperspectral imaging of convective CO₂ ice clouds in the equatorial mesosphere of Mars. Journal of Geophysical Research, 2007, 112, .	3.3	81
48	Preliminary characterization of the upper haze by SPICAV/SOIR solar occultation in UV to midâ€IR onboard Venus Express. Journal of Geophysical Research, 2009, 114, .	3.3	81
49	A layer of ozone detected in the nightside upper atmosphere of Venus. Icarus, 2011, 216, 82-85.	2.5	81
50	MAVEN IUVS observation of the hot oxygen corona at Mars. Geophysical Research Letters, 2015, 42, 9009-9014.	4.0	77
51	Photolysis of sulphuric acid as the source of sulphur oxides in the mesosphere of Venus. Nature Geoscience, 2010, 3, 834-837.	12.9	75
52	Recent Ice Ages on Mars: The role of radiatively active clouds and cloud microphysics. Geophysical Research Letters, 2014, 41, 4873-4879.	4.0	75
53	New insights into Martian dust distribution and water-ice cloud microphysics. Journal of Geophysical Research, 2002, 107, 4-1.	3.3	73
54	Applications of Electrified Dust and Dust Devil Electrodynamics to Martian Atmospheric Electricity. Space Science Reviews, 2016, 203, 299-345.	8.1	72

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55	Mapping the mesospheric CO2 clouds on Mars: MEx/OMEGA and MEx/HRSC observations and challenges for atmospheric models. Icarus, 2010, 209, 452-469.	2.5	71
56	Threeâ€dimensional structure in the Mars H corona revealed by IUVS on MAVEN. Geophysical Research Letters, 2015, 42, 9001-9008.	4.0	67
57	Variations of water vapor and cloud top altitude in the Venusâ€™ mesosphere from SPICAV/VEx observations. Icarus, 2016, 275, 143-162.	2.5	67
58	A complete climatology of the aerosol vertical distribution on Mars from MEx/SPICAM UV solar occultations. Icarus, 2013, 223, 892-941.	2.5	64
59	Variability of D and H in the Martian upper atmosphere observed with the MAVEN IUVS echelle channel. Journal of Geophysical Research: Space Physics, 2017, 122, 2336-2344.	2.4	64
60	SPICAM on Mars Express: A 10 year in-depth survey of the Martian atmosphere. Icarus, 2017, 297, 195-216.	2.5	64
61	Update of the Venus density and temperature profiles at high altitude measured by SOIR on board Venus Express. Planetary and Space Science, 2015, 113-114, 309-320.	1.7	59
62	MAVEN IUVS observations of the aftermath of the Comet Siding Spring meteor shower on Mars. Geophysical Research Letters, 2015, 42, 4755-4761.	4.0	56
63	MAVEN/IUVS Stellar Occultation Measurements of Mars Atmospheric Structure and Composition. Journal of Geophysical Research E: Planets, 2018, 123, 1449-1483.	3.6	56
64	First detection of Mars atmospheric hydroxyl: CRISM Near-IR measurement versus LMD GCM simulation of OH Meinel band emission in the Mars polar winter atmosphere. Icarus, 2013, 226, 272-281.	2.5	54
65	Mars Express investigations of Phobos and Deimos. Planetary and Space Science, 2014, 102, 18-34.	1.7	54
66	CO2 clouds, CAPE and convection on Mars: Observations and general circulation modeling. Planetary and Space Science, 2008, 56, 150-180.	1.7	53
67	Seasonal variations of hydrogen peroxide and water vapor on Mars: Further indications of heterogeneous chemistry. Astronomy and Astrophysics, 2015, 578, A127.	5.1	53
68	Aerosol properties in the upper haze of Venus from SPICAV IR data. Icarus, 2016, 277, 154-170.	2.5	53
69	Sulfur dioxide in the Venus Atmosphere: II. Spatial and temporal variability. Icarus, 2017, 295, 1-15.	2.5	53
70	Detection of a persistent meteoric metal layer in the Martian atmosphere. Nature Geoscience, 2017, 10, 401-404.	12.9	52
71	Documentation of the NASA/Ames Legacy Mars Global Climate Model: Simulations of the present seasonal water cycle. Icarus, 2019, 333, 130-164.	2.5	51
72	In-flight performance and calibration of SPICAV SOIR onboard Venus Express. Applied Optics, 2008, 47, 2252.	2.1	50

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73	First observations of SO₂ above Venus' clouds by means of Solar Occultation in the Infrared. Journal of Geophysical Research, 2008, 113, .	3.3	50
74	Simulating the density and thermal structure of the middle atmosphere (â¼80â€“130km) of Mars using the MGCMâ€“MTGCM: A comparison with MEX/SPICAM observations. Icarus, 2010, 206, 5-17.	2.5	50
75	Viking observation of water vapor on Mars: Revision from up-to-date spectroscopy and atmospheric models. Icarus, 2010, 208, 156-164.	2.5	50
76	Atomic oxygen on the Venus nightside: Global distribution deduced from airglow mapping. Icarus, 2012, 217, 849-855.	2.5	50
77	Discovery of a proton aurora at Mars. Nature Astronomy, 2018, 2, 802-807.	10.1	50
78	Climatology of SO2 and UV absorber at Venus' cloud top from SPICAV-UV nadir dataset. Icarus, 2020, 335, 113368.	2.5	50
79	SPICAV IR acousto-optic spectrometer experiment on Venus Express. Planetary and Space Science, 2012, 65, 38-57.	1.7	49
80	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
81	The seasonal cycle of water vapour on Mars from assimilation of Thermal Emission Spectrometer data. Icarus, 2014, 237, 97-115.	2.5	47
82	Sulfur dioxide in the Venus atmosphere: I. Vertical distribution and variability. Icarus, 2017, 295, 16-33.	2.5	47
83	The dynamic atmospheric and aeolian environment of Jezero crater, Mars. Science Advances, 2022, 8, .	10.3	47
84	An aerodynamic roughness length map derived from extended Martian rock abundance data. Journal of Geophysical Research, 2012, 117, .	3.3	45
85	The O2 nightglow in the martian atmosphere by SPICAM onboard of Mars-Express. Icarus, 2012, 219, 596-608.	2.5	45
86	Global Aurora on Mars During the September 2017 Space Weather Event. Geophysical Research Letters, 2018, 45, 7391-7398.	4.0	44
87	Densities and temperatures in the Venus mesosphere and lower thermosphere retrieved from SOIR on board Venus Express: Carbon dioxide measurements at the Venus terminator. Journal of Geophysical Research, 2012, 117, .	3.3	43
88	Transport-driven formation of a polar ozone layer on Mars. Nature Geoscience, 2013, 6, 930-933.	12.9	43
89	Simultaneous mapping of H2O and H2O2 on Mars from infrared high-resolution imaging spectroscopy. Icarus, 2008, 195, 547-556.	2.5	42
90	Aphelion waterâ€ice cloud mapping and property retrieval using the OMEGA imaging spectrometer onboard Mars Express. Journal of Geophysical Research, 2012, 117, .	3.3	42

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91	Probing the Martian atmosphere with MAVEN/IUVS stellar occultations. Geophysical Research Letters, 2015, 42, 9064-9070.	4.0	42
92	Mars H Escape Rates Derived From MAVEN/IUVS Lyman Alpha Brightness Measurements and Their Dependence on Model Assumptions. Journal of Geophysical Research E: Planets, 2018, 123, 2192-2210.	3.6	42
93	New observations of molecular nitrogen in the Martian upper atmosphere by IUVS on MAVEN. Geophysical Research Letters, 2015, 42, 9050-9056.	4.0	41
94	On the origin of perennial water ice at the south pole of Mars: A precessionâ€controlled mechanism?. Journal of Geophysical Research, 2007, 112, .	3.3	40
95	The distribution, composition, and particle properties of Mars mesospheric aerosols: An analysis of CRISM visible/near-IR limb spectra with context from near-coincident MCS and MARCI observations. Icarus, 2019, 328, 246-273.	2.5	40
96	Martian water loss to space enhanced by regional dust storms. Nature Astronomy, 2021, 5, 1036-1042.	10.1	40
97	Volatile Trapping in Martian Clathrates. Space Science Reviews, 2013, 174, 213-250.	8.1	39
98	A map of D/H on Mars in the thermal infrared using EXES aboard SOFIA. Astronomy and Astrophysics, 2016, 586, A62.	5.1	39
99	First detection of O₂ 1.27 Î¼m nightglow emission at Mars with OMEGA/MEX and comparison with general circulation model predictions. Journal of Geophysical Research, 2012, 117, .	3.3	37
100	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
101	Thermal structure of Venus nightside upper atmosphere measured by stellar occultations with SPICAV/Venus Express. Planetary and Space Science, 2015, 113-114, 321-335.	1.7	37
102	Altitude profiles of O2 on Mars from SPICAM stellar occultations. Icarus, 2015, 252, 154-160.	2.5	37
103	Transient HCl in the atmosphere of Mars. Science Advances, 2021, 7, .	10.3	37
104	Retrieving cloud, dust and ozone abundances in the Martian atmosphere using SPICAM/UV nadir spectra. Planetary and Space Science, 2017, 142, 9-25.	1.7	36
105	Nitric oxide nightglow and Martian mesospheric circulation from MAVEN/IUVS observations and LMDâ€MGCM predictions. Journal of Geophysical Research: Space Physics, 2017, 122, 5782-5797.	2.4	36
106	Simulating the Martian dust cycle with a finite surface dust reservoir. Geophysical Research Letters, 2005, 32, .	4.0	35
107	Observations of thermal tides in the middle atmosphere of Mars by the SPICAM instrument. Journal of Geophysical Research, 2011, 116, .	3.3	35
108	VUV-absorption cross section of carbon dioxide from 150 to 800 K and applications to warm exoplanetary atmospheres. Astronomy and Astrophysics, 2018, 609, A34.	5.1	35

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109	Unraveling the martian water cycle with high-resolution global climate simulations. Icarus, 2017, 291, 82-106.	2.5	34
110	The thermal structure of the Venus atmosphere: Intercomparison of Venus Express and ground based observations of vertical temperature and density profiles. Icarus, 2017, 294, 124-155.	2.5	34
111	Three infrared spectrometers, an atmospheric chemistry suite for the ExoMars 2016 trace gas orbiter. Journal of Applied Remote Sensing, 2014, 8, 084983.	1.3	32
112	Night side distribution of SO2 content in Venusâ€™ upper mesosphere. Icarus, 2017, 294, 58-71.	2.5	32
113	Snow precipitation on Mars driven by cloud-induced night-time convection. Nature Geoscience, 2017, 10, 652-657.	12.9	32
114	Observations of the Proton Aurora on Mars With SPICAM on Board Mars Express. Geophysical Research Letters, 2018, 45, 612-619.	4.0	32
115	Multiâ€Annual Monitoring of the Water Vapor Vertical Distribution on Mars by SPICAM on Mars Express. Journal of Geophysical Research E: Planets, 2021, 126, .	3.6	32
116	Dust and cloud detection at the Mars limb with UV scattered sunlight with SPICAM. Journal of Geophysical Research, 2006, 111, .	3.3	31
117	O2(a1Î”g) dayglow limb observations on Mars by SPICAM IR on Mars-Express and connection to water vapor distribution. Icarus, 2014, 239, 131-140.	2.5	31
118	Concatenation of HRSC colour and OMEGA data for the determination and 3D-parameterization of high-altitude CO2 clouds in the Martian atmosphere. Planetary and Space Science, 2010, 58, 1207-1214.	1.7	30
119	Modeling the microphysics of CO2 ice clouds within wave-induced cold pockets in the martian mesosphere. Icarus, 2014, 237, 239-261.	2.5	30
120	Preliminary study of Venus cloud layers with polarimetric data from SPICAV/VEx. Planetary and Space Science, 2015, 113-114, 159-168.	1.7	30
121	The vertical structure of CO in the Martian atmosphere from the ExoMars Trace Gas Orbiter. Nature Geoscience, 2021, 14, 67-71.	12.9	30
122	In situ recording of Mars soundscape. Nature, 2022, 605, 653-658.	27.8	30
123	Ten years of Martian nitric oxide nightglow observations. Geophysical Research Letters, 2015, 42, 720-725.	4.0	29
124	Mars thermospheric scale height: CO Cameron and CO2+ dayglow observations from Mars Express. Icarus, 2015, 245, 295-305.	2.5	29
125	Long-term nadir observations of the O2 dayglow by SPICAM IR. Planetary and Space Science, 2016, 122, 1-12.	1.7	29
126	Significant Space Weather Impact on the Escape of Hydrogen From Mars. Geophysical Research Letters, 2018, 45, 8844-8852.	4.0	29

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127	Line parameters for the 01111â€“00001 band of 12C16O18O from SOIR measurements of the Venus atmosphere. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 895-905.	2.3	28
128	Properties of Water Ice and Dust Particles in the Atmosphere of Mars During the 2018 Global Dust Storm as Inferred From the Atmospheric Chemistry Suite. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006419.	3.6	28
129	Martian Water Ice Clouds During the 2018 Global Dust Storm as Observed by the ACSâ€MIR Channel Onboard the Trace Gas Orbiter. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006300.	3.6	27
130	Isotopic fractionation of water and its photolytic products in the atmosphere of Mars. Nature Astronomy, 2021, 5, 943-950.	10.1	27
131	New measurements of D/H on Mars using EXES aboard SOFIA. Astronomy and Astrophysics, 2018, 612, A112.	5.1	26
132	First observation of the magnetic dipole CO₂absorption band at 3.3Î¼m in the atmosphere of Mars by the ExoMars Trace Gas Orbiter ACS instrument. Astronomy and Astrophysics, 2020, 639, A142.	5.1	25
133	Mars Clouds. , 2017, , 76-105.		24
134	The Water Cycle. , 2017, , 338-373.		24
135	Martian Thermospheric Response to an X8.2 Solar Flare on 10 September 2017 as Seen by MAVEN/IUVS. Geophysical Research Letters, 2018, 45, 7312-7319.	4.0	24
136	Oxygen isotopic ratios in Martian water vapour observed by ACS MIR on board the ExoMars Trace Gas Orbiter. Astronomy and Astrophysics, 2019, 630, A91.	5.1	24
137	Revealing a High Water Abundance in the Upper Mesosphere of Mars With ACS Onboard TGO. Geophysical Research Letters, 2021, 48, e2021GL093411.	4.0	24
138	EnVision: taking the pulse of our twin planet. Experimental Astronomy, 2012, 33, 337-363.	3.7	23
139	Martian mesospheric cloud observations by IUVS on MAVEN: Thermal tides coupled to the upper atmosphere. Geophysical Research Letters, 2017, 44, 4709-4715.	4.0	23
140	First detection of ozone in the mid-infrared at Mars: implications for methane detection. Astronomy and Astrophysics, 2020, 639, A141.	5.1	23
141	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
142	Gravity Wave Activity in the Martian Atmosphere at Altitudes 20â€“160Âkm From ACS/TGO Occultation Measurements. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006899.	3.6	22
143	NO emissions as observed by SPICAV during stellar occultations. Planetary and Space Science, 2010, 58, 1314-1326.	1.7	21
144	Study of the Martian cold oxygen corona from the Oâ€‰I 130.4â€‰nm by IUVS/MAVEN. Geophysical Research Letters, 2015, 42, 9031-9039.	4.0	21

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145	Martian ice cloud distribution obtained from SPICAM nadir UV measurements. Journal of Geophysical Research, 2007, 112, .	3.3	20
146	ACS experiment for atmospheric studies on â€œExoMars-2016â€•Orbiter. Solar System Research, 2015, 49, 529-537.	0.7	19
147	The DREAMS Experiment Onboard the Schiaparelli Module of the ExoMars 2016 Mission: Design, Performances and Expected Results. Space Science Reviews, 2018, 214, 1.	8.1	19
148	Discovery of cloud top ozone on Venus. Icarus, 2019, 319, 491-498.	2.5	19
149	Relationship Between the Ozone and Water Vapor Columns on Mars as Observed by SPICAM and Calculated by a Global Climate Model. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006838.	3.6	19
150	The SuperCam infrared spectrometer for the perseverance rover of the Mars2020 mission. Icarus, 2022, 373, 114773.	2.5	19
151	The Orbital Forcing of Climate Changes on Mars. Space Science Reviews, 2007, 125, 457-472.	8.1	18
152	First climatology of polar mesospheric clouds from GOMOS/ENVISAT stellar occultation instrument. Atmospheric Chemistry and Physics, 2010, 10, 2723-2735.	4.9	18
153	Direct-detection wind lidar operating with a multimode laser. Applied Optics, 2013, 52, 4941.	1.8	18
154	Vertical Propagation of Wave Perturbations in the Middle Atmosphere on Mars by MAVEN/IUVS. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006481.	3.6	18
155	Compact echelle spectrometer for occultation sounding of the Martian atmosphere: design and performance. Applied Optics, 2013, 52, 1054.	1.8	17
156	Seasonal reappearance of HCl in the atmosphere of Mars during the Mars year 35 dusty season. Astronomy and Astrophysics, 2021, 647, A161.	5.1	17
157	Study of the hydrogen escape rate at Mars during martian years 28 and 29 from comparisons between SPICAM/Mars express observations and GCM-LMD simulations. Icarus, 2021, 353, 113498.	2.5	16
158	Annual Appearance of Hydrogen Chloride on Mars and a Striking Similarity With the Water Vapor Vertical Distribution Observed by TGO/NOMAD. Geophysical Research Letters, 2021, 48, e2021GL092506.	4.0	15
159	Mars cryosphere: A potential reservoir for heavy noble gases?. Icarus, 2012, 218, 80-87.	2.5	14
160	Nearâ€pure vapor condensation in the Martian atmosphere: CO₂ ice crystal growth. Journal of Geophysical Research E: Planets, 2013, 118, 2153-2171.	3.6	13
161	The DREAMS experiment on the ExoMars 2016 mission for the study of Martian environment during the dust storm season. , 2014, , .		13
162	Investigations of the Mars Upper Atmosphere with ExoMars Trace Gas Orbiter. Space Science Reviews, 2018, 214, 1.	8.1	13

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163	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.	3.6	13
164	Detection of Mesospheric CO₂ Ice Clouds on Mars in Southern Summer. Geophysical Research Letters, 2019, 46, 7962-7971.	4.0	13
165	Magnetic dipole and electric quadrupole absorption in carbon dioxide. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 259, 107408.	2.3	13
166	A photochemical model of the dustâ€loaded ionosphere of Mars. Journal of Geophysical Research E: Planets, 2016, 121, 2335-2348.	3.6	12
167	A spectral synergy method to retrieve martian water vapor column-abundance and vertical distribution applied to Mars Express SPICAM and PFS nadir measurements. Icarus, 2019, 317, 549-569.	2.5	12
168	The Effect of the Martian 2018 Global Dust Storm on HDO as Predicted by a Mars Global Climate Model. Geophysical Research Letters, 2021, 48, e2020GL090962.	4.0	12
169	Isotopic Composition of CO₂ in the Atmosphere of Mars: Fractionation by Diffusive Separation Observed by the ExoMars Trace Gas Orbiter. Journal of Geophysical Research E: Planets, 2021, 126, .	3.6	12
170	AOST: Fourier spectrometer for studying mars and phobos. Solar System Research, 2012, 46, 31-40.	0.7	11
171	The Mars system revealed by the Martian Moons eXploration mission. Earth, Planets and Space, 2022, 74, .	2.5	11
172	Water vapor map of Mars near summer solstice using ground-based infrared spectroscopy. Astronomy and Astrophysics, 2010, 520, A33.	5.1	10
173	Pre-launch radiometric calibration of the infrared spectrometer onboard SuperCam for the Mars2020 rover. Review of Scientific Instruments, 2020, 91, 063105.	1.3	10
174	Thermal Tides in the Martian Atmosphere Near Northern Summer Solstice Observed by ACS/TIRVIM Onboard TGO. Geophysical Research Letters, 2022, 49, .	4.0	10
175	The Mars Climate Database (version 4.3). , 0, , .		9
176	The DREAMS experiment flown on the ExoMars 2016 mission for the study of Martian environment during the dust storm season. Measurement: Journal of the International Measurement Confederation, 2018, 122, 484-493.	5.0	9
177	A Warm Layer in the Nightside Mesosphere of Mars. Geophysical Research Letters, 2020, 47, e2019GL085646.	4.0	9
178	Thermal Structure and Aerosols in Marsâ€™ Atmosphere From TIRVIM/ACS Onboard the ExoMars Trace Gas Orbiter: Validation of the Retrieval Algorithm. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	9
179	Troposphere-to-mesosphere microphysics of carbon dioxide ice clouds in a Mars Global Climate Model. Icarus, 2022, 385, 115098.	2.5	9
180	Detection of Martian dust clouds by SPICAM UV nadir measurements during the October 2005 regional dust storm. Advances in Space Research, 2007, 40, 869-880.	2.6	8

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