ThÃ©rÃ¨se Encrenaz

List of Publications by Year
in descending order

91 papers	5,069 citations	76326 40 h-index	91884 69 g-index
95 all docs	95 docs citations	95 times ranked	3796 citing authors

#	Article	IF	Citations
1	Detection of Methane in the Atmosphere of Mars. Science, 2004, 306, 1758-1761.	12.6	683
2	A chemical survey of exoplanets with ARIEL. Experimental Astronomy, 2018, 46, 135-209.	3.7	249
3	Strong water isotopic anomalies in the martian atmosphere: Probing current and ancient reservoirs. Science, 2015, 348, 218-221.	12.6	245
4	External supply of oxygen to the atmospheres of the giant planets. Nature, 1997, 389, 159-162.	27.8	206
5	The deuterium abundance in Jupiter and Saturn from ISO-SWS observations. Astronomy and Astrophysics, 2001, 370, 610-622.	5.1	204
6	MIRO: Microwave Instrument for Rosetta Orbiter. Space Science Reviews, 2007, 128, 561-597.	8.1	173
7	Galileo Infrared Imaging Spectroscopy Measurements at Venus. Science, 1991, 253, 1541-1548.	12.6	156
8	Heterogeneous chemistry in the atmosphere of Mars. Nature, 2008, 454, 971-975.	27.8	130
9	A sensitive search for organics (CH4, CH3OH, H2CO, C2H6, C2H2, C2H4), hydroperoxyl (HO2), nitrogen compounds (N2O, NH3, HCN) and chlorine species (HCl, CH3Cl) on Mars using ground-based high-resolution infrared spectroscopy. Icarus, 2013, 223, 11-27.	2.5	126
10	The Atmospheric Chemistry Suite (ACS) of Three Spectrometers for the ExoMars 2016 Trace Gas Orbiter. Space Science Reviews, 2018, 214, 1.	8.1	119
11	Spectroscopy of planetary atmospheres in our Galaxy. Astronomy and Astrophysics Review, 2013, 21, 1.	25.5	102
12	Martian water vapor: Mars Express PFS/LW observations. Icarus, 2007, 190, 32-49.	2.5	101
13	EChO. Experimental Astronomy, 2012, 34, 311-353.	3.7	98
14	The Origin of Water Vapor and Carbon Dioxide in Jupiter's Stratosphere. Icarus, 2002, 159, 112-131.	2.5	92
15	Chemical and thermal response of Jupiter's atmosphere following the impact of comet Shoemakerâ€“Levy 9. Nature, 1995, 373, 592-595.	27.8	90
16	Detection of the Methyl Radical on Neptune. Astrophysical Journal, 1999, 515, 868-872.	4.5	82
17	The 2.4â€“ spectrum of Mars observed with the infrared space observatory. Planetary and Space Science, 2000, 48, 1393-1405.	1.7	79
18	Water in the Solar System. Annual Review of Astronomy and Astrophysics, 2008, 46, 57-87.	24.3	78

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19	Hydrogen peroxide on Mars: Observations, interpretation and future plans. Planetary and Space Science, 2012, 68, 3-17.	1.7	72
20	Chemical markers of possible hot spots on Mars. Journal of Geophysical Research, 2003, 108, .	3.3	70
21	Scientific rationale for Uranus and Neptune in situ explorations. Planetary and Space Science, 2018, 155, 12-40.	1.7	69
22	An estimate of the PH3, CH3D, and GeH4 Abundances on Jupiter from the Voyager IRIS data at 4.5 Î¼m. Icarus, 1982, 49, 416-426.	2.5	67
23	Element Abundances and Isotope Ratios in the Giant Planets and Titan. Space Science Reviews, 2003, 106, 121-138.	8.1	64
24	Millimeter-wave observations of Saturn, Uranus, and Neptune - CO and HCN on Neptune. Astrophysical Journal, 1992, 392, L99.	4.5	64
25	Evidence for methane escape and strong seasonal and dynamical perturbations of Neptune's atmospheric temperatures. Astronomy and Astrophysics, 2007, 473, L5-L8.	5.1	59
26	Water and related chemistry in the solar system. A guaranteed time key programme for Herschel. Planetary and Space Science, 2009, 57, 1596-1606.	1.7	58
27	Herschel/HIFI observations of Mars: First detection of O₂at submillimetre wavelengths and upper limits on HCl and H₂O₂. Astronomy and Astrophysics, 2010, 521, L49.	5.1	57
28	Compositional constraints on giant planet formation. Planetary and Space Science, 2006, 54, 1188-1196.	1.7	55
29	Seasonal variations of hydrogen peroxide and water vapor on Mars: Further indications of heterogeneous chemistry. Astronomy and Astrophysics, 2015, 578, A127.	5.1	53
30	The Solar System. Astronomy and Astrophysics Library, 2004, , .	0.1	52
31	The first submillimeter observation of CO in the stratosphere of Uranus. Astronomy and Astrophysics, 2014, 562, A33.	5.1	52
32	Mars atmospheric chemistry simulations with the GEM-Mars general circulation model. Icarus, 2019, 326, 197-224.	2.5	52
33	Water vapor mapping on Mars using OMEGA/Mars Express. Planetary and Space Science, 2007, 55, 333-342.	1.7	50
34	Climatology of SO2 and UV absorber at Venus' cloud top from SPICAV-UV nadir dataset. Icarus, 2020, 335, 113368.	2.5	50
35	A stringent upper limit to SO₂in the Martian atmosphere. Astronomy and Astrophysics, 2011, 530, A37.	5.1	49
36	CHARACTERIZING THE ATMOSPHERES OF TRANSITING PLANETS WITH A DEDICATED SPACE TELESCOPE. Astrophysical Journal, 2012, 746, 45.	4.5	49

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37	A stringent upper limit of the PH₃abundance at the cloud top of Venus. Astronomy and Astrophysics, 2020, 643, L5.	5.1	49
38	Submillimeter mapping of mesospheric minor species on Venus with ALMA. Planetary and Space Science, 2015, 113-114, 275-291.	1.7	45
39	Infrared imaging spectroscopy of Mars: H2O mapping and determination of CO2 isotopic ratios. Icarus, 2005, 179, 43-54.	2.5	42
40	Simultaneous mapping of H2O and H2O2 on Mars from infrared high-resolution imaging spectroscopy. Icarus, 2008, 195, 547-556.	2.5	42
41	Annual survey of water vapor behavior from the OMEGA mapping spectrometer onboard Mars Express. Icarus, 2011, 213, 480-495.	2.5	42
42	A spatially resolved high spectral resolution study of Neptuneâ€™s stratosphere. Icarus, 2011, 214, 606-621.	2.5	41
43	HDO and SO₂thermal mapping on Venus: evidence for strong SO₂Âvariability. Astronomy and Astrophysics, 2012, 543, A153.	5.1	40
44	A map of D/H on Mars in the thermal infrared using EXES aboard SOFIA. Astronomy and Astrophysics, 2016, 586, A62.	5.1	39
45	Continuum and spectroscopic observations of asteroid (21) Lutetia at millimeter and submillimeter wavelengths with the MIRO instrument on the Rosetta spacecraft. Planetary and Space Science, 2012, 66, 31-42.	1.7	38
46	Observations of atmospheric water vapor above the Tharsis volcanoes on Mars with the OMEGA/MEx imaging spectrometer. Icarus, 2008, 194, 53-64.	2.5	31
47	The EChO science case. Experimental Astronomy, 2015, 40, 329-391.	3.7	31
48	Millimeter and submillimeter measurements of asteroid (2867) Steins during the Rosetta fly-by. Planetary and Space Science, 2010, 58, 1077-1087.	1.7	30
49	Transit spectroscopy of exoplanets from space: how to optimize the wavelength coverage and spectral resolving power. Experimental Astronomy, 2015, 40, 523-543.	3.7	29
50	Transit spectroscopy of temperate Jupiters with ARIEL: a feasibility study. Experimental Astronomy, 2018, 46, 31-44.	3.7	28
51	HDO and SO₂thermal mapping on Venus. Astronomy and Astrophysics, 2013, 559, A65.	5.1	26
52	New measurements of D/H on Mars using EXES aboard SOFIA. Astronomy and Astrophysics, 2018, 612, A112.	5.1	26
53	HDO and SO₂ thermal mapping on Venus. Astronomy and Astrophysics, 2019, 623, A70.	5.1	26
54	A mapping of martian water sublimation during early northern summer using OMEGA/Mars Express. Astronomy and Astrophysics, 2005, 441, L9-L12.	5.1	26

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55	Wind measurements in Mars' middle atmosphere: IRAM Plateau de Bure interferometric CO observations. Icarus, 2009, 201, 549-563.	2.5	25
56	HDO and SO₂thermal mapping on Venus. Astronomy and Astrophysics, 2016, 595, A74.	5.1	24
57	A method for the determination of abundance ratios in the outer planetsâ€"Application to Jupiter. Icarus, 1979, 39, 1-27.	2.5	23
58	A Tentative Detection of the 183-GHz Water Vapor Line in the Martian Atmosphere: Constraints upon the H2O Abundance and Vertical Distribution. Icarus, 1995, 113, 110-118.	2.5	23
59	Thermal imaging of Uranus: Upper-tropospheric temperatures one season after Voyager. Icarus, 2015, 260, 94-102.	2.5	22
60	Mars: a small terrestrial planet. Astronomy and Astrophysics Review, 2016, 24, 1.	25.5	22
61	Thermal Structure and Composition. , 2017, , 42-75.		19
62	HDO and SO₂thermal mapping on Venus. Astronomy and Astrophysics, 2020, 639, A69.	5.1	19
63	The planet Jupiter. Astronomy and Astrophysics Review, 1999, 9, 171-219.	25.5	18
64	Vertical temperature profile and mesospheric winds retrieval on Mars from COÂmillimeter observations. Astronomy and Astrophysics, 2008, 489, 795-809.	5.1	18
65	OMEGA/Mars Express: South Pole Region, water vapor daily variability. Icarus, 2009, 201, 102-112.	2.5	17
66	Topography of the Martian tropical regions with ISM. Planetary and Space Science, 1991, 39, 225-236.	1.7	15
67	ISO observations of the giant planets and Titan: what have we learnt?. Planetary and Space Science, 2003, 51, 89-103.	1.7	15
68	The Planets and Titan Observed by ISO. Space Science Reviews, 2005, 119, 123-139.	8.1	13
69	On the abundance of deuterium in Jupiter's atmosphere. Astrophysical Journal, 1978, 221, 378.	4.5	13
70	The far-infrared spectra of Jupiter and Saturn. Planetary and Space Science, 2004, 52, 379-383.	1.7	11
71	Far-infrared spectroscopy of the giant planets: measurements of ammonia and phosphine at Jupiter and Saturn and the continuum of Neptune. Advances in Space Research, 2004, 34, 2247-2250.	2.6	11
72	Water vapor map of Mars near summer solstice using ground-based infrared spectroscopy. Astronomy and Astrophysics, 2010, 520, A33.	5.1	10

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73	Stringent upper limit of CH₄ on Mars based on SOFIA/EXES observations. Astronomy and Astrophysics, 2018, 610, A78.	5.1	10
74	A study of the Martian water vapor over Hellas using OMEGA and PFS aboard Mars Express. Astronomy and Astrophysics, 2008, 484, 547-553.	5.1	8
75	Ground-based infrared mapping of H₂O₂ on Mars near opposition. Astronomy and Astrophysics, 2019, 627, A60.	5.1	8
76	Search for methane on Mars: Observations, interpretation and future work. Advances in Space Research, 2008, 42, 1-5.	2.6	6
77	Infrared spectroscopy of exoplanets: observational constraints. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130083.	3.4	6
78	Unique Spectroscopy and Imaging of Mars with the James Webb Space Telescope. Publications of the Astronomical Society of the Pacific, 2016, 128, 018004.	3.1	5
79	Neutral Atmospheres of the Giant Planets: An Overview of Composition Measurements. , 2005, , 99-119.		4
80	Sub-millimeter observations of the terrestrial atmosphere during an Earth flyby of the MIRO sounder on the Rosetta spacecraft. Planetary and Space Science, 2013, 82-83, 99-112.	1.7	3
81	Remote sensing analysis of solar-system objects. Physica Scripta, 2008, T130, 014037.	2.5	3
82	The Planets and Titan Observed by ISO. , 2005, , 123-139.		3
83	Infrared Spectroscopy of Solar-System Planets. Space Science Reviews, 2008, 135, 11-23.	8.1	2
84	Ground-Based Observations of the Martian Atmosphere in Support of Space Missions. Earth, Moon and Planets, 2009, 105, 127-134.	0.6	2
85	High-resolution imaging spectroscopy of planetary atmospheres. Comptes Rendus - Geoscience, 2015, 347, 145-152.	1.2	2
86	Invited review: Infrared spectroscopy of planetary atmospheres: Searching for insights into their past and present histories. Icarus, 2022, 376, 114885.	2.5	2
87	Observability of temperate exoplanets with Ariel. Experimental Astronomy, 2022, 53, 375-390.	3.7	1
88	The formation and evolution of the Solar System. European Review, 2002, 10, 171-184.	0.7	0
89	In memoriam Vasily Ivanovitch Moroz (1931â€“2004). Planetary and Space Science, 2004, 52, 1231-1232.	1.7	0
90	Jupiter and the other Giants: A Comparative Study. Proceedings of the International Astronomical Union, 2010, 6, 155-164.	0.0	0

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91	Infrared Spectroscopy of Solar-System Planets. Space Sciences Series of ISSI, 2008, , 11-23.	0.0	0