

# Emmanuel Marcq

## List of Publications by Year in descending order

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65  
papers

3,023  
citations

126708

33  
h-index

161609

54  
g-index

78  
all docs

78  
docs citations

78  
times ranked

2193  
citing authors

#	ARTICLE	IF	CITATIONS
1	3D modelling of the early martian climate under a denser CO <sub>2</sub> atmosphere: Temperatures and CO <sub>2</sub> ice clouds. <i>Icarus</i> , 2013, 222, 81-99.	1.1	259
2	Thermal evolution of an early magma ocean in interaction with the atmosphere. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 1155-1176.	1.5	173
3	Variations of sulphur dioxide at the cloud top of Venus's dynamic atmosphere. <i>Nature Geoscience</i> , 2013, 6, 25-28.	5.4	164
4	The Atmospheric Chemistry Suite (ACS) of Three Spectrometers for the ExoMars 2016 Trace Gas Orbiter. <i>Space Science Reviews</i> , 2018, 214, 1.	3.7	119
5	No detection of methane on Mars from early ExoMars Trace Gas Orbiter observations. <i>Nature</i> , 2019, 568, 517-520.	13.7	111
6	Vertical profiling of SO <sub>2</sub> and SO above Venus's clouds by SPICAV/SOIR solar occultations. <i>Icarus</i> , 2012, 217, 740-751.	1.1	103
7	Remote sensing of Venus's lower atmosphere from ground-based IR spectroscopy: Latitudinal and vertical distribution of minor species. <i>Planetary and Space Science</i> , 2006, 54, 1360-1370.	0.9	90
8	An investigation of the SO <sub>2</sub> content of the venusian mesosphere using SPICAV-UV in nadir mode. <i>Icarus</i> , 2011, 211, 58-69.	1.1	86
9	Escape of the martian protoatmosphere and initial water inventory. <i>Planetary and Space Science</i> , 2014, 98, 106-119.	0.9	83
10	Composition and Chemistry of the Neutral Atmosphere of Venus. <i>Space Science Reviews</i> , 2018, 214, 1.	3.7	82
11	A layer of ozone detected in the nightside upper atmosphere of Venus. <i>Icarus</i> , 2011, 216, 82-85.	1.1	81
12	A latitudinal survey of CO, OCS, H <sub>2</sub> O, and SO <sub>2</sub> in the lower atmosphere of Venus: Spectroscopic studies using VIRTIS. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	79
13	Irradiated Ocean Planets Bridge Super-Earth and Sub-Neptune Populations. <i>Astrophysical Journal Letters</i> , 2020, 896, L22.	3.0	79
14	The relative influence of H <sub>2</sub> O and CO <sub>2</sub> on the primitive surface conditions and evolution of rocky planets. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 1458-1486.	1.5	76
15	Formation and Evolution of Protoatmospheres. <i>Space Science Reviews</i> , 2016, 205, 153-211.	3.7	68
16	Day's night cloud asymmetry prevents early oceans on Venus but not on Earth. <i>Nature</i> , 2021, 598, 276-280.	13.7	68
17	Variations of water vapor and cloud top altitude in the Venus's mesosphere from SPICAV/VEx observations. <i>Icarus</i> , 2016, 275, 143-162.	1.1	67
18	SPICAM on Mars Express: A 10 year in-depth survey of the Martian atmosphere. <i>Icarus</i> , 2017, 297, 195-216.	1.1	64

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19	A simple 1D radiative-convective atmospheric model designed for integration into coupled models of magma ocean planets. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	60
20	Influence of Venus topography on the zonal wind and UV albedo at cloud top level: The role of stationary gravity waves. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 1087-1101.	1.5	60
21	Evidence for carbonyl sulfide (OCS) conversion to CO in the lower atmosphere of Venus. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	56
22	Water vapor abundance near the surface of Venus from Venus Express/VIRTIS observations. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	55
23	Sulfur dioxide in the Venus Atmosphere: II. Spatial and temporal variability. <i>Icarus</i> , 2017, 295, 1-15.	1.1	53
24	Climatology of SO <sub>2</sub> and UV absorber at Venus' cloud top from SPICAV-UV nadir dataset. <i>Icarus</i> , 2020, 335, 113368.	1.1	50
25	Planetary system LHS 1140 revisited with ESPRESSO and TESS. <i>Astronomy and Astrophysics</i> , 2020, 642, A121.	2.1	50
26	A stringent upper limit of the PH <sub>3</sub> abundance at the cloud top of Venus. <i>Astronomy and Astrophysics</i> , 2020, 643, L5.	2.1	49
27	Sulfur dioxide in the Venus atmosphere: I. Vertical distribution and variability. <i>Icarus</i> , 2017, 295, 16-33.	1.1	47
28	Thermal radiation of magma ocean planets using a 1D radiative-convective model of H <sub>2</sub> O-CO <sub>2</sub> atmospheres. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 1539-1553.	1.5	47
29	Constraining the early evolution of Venus and Earth through atmospheric Ar, Ne isotope and bulk K/U ratios. <i>Icarus</i> , 2020, 339, 113551.	1.1	47
30	Latitudinal variations of CO and OCS in the lower atmosphere of Venus from near-infrared nightside spectro-imaging. <i>Icarus</i> , 2005, 179, 375-386.	1.1	40
31	Mass-Radius Relationships for Irradiated Ocean Planets. <i>Astrophysical Journal</i> , 2021, 914, 84.	1.6	40
32	Thermal structure of Venus nightside upper atmosphere measured by stellar occultations with SPICAV/Venus Express. <i>Planetary and Space Science</i> , 2015, 113-114, 321-335.	0.9	37
33	Long-term variations of the UV contrast on Venus observed by the Venus Monitoring Camera on board Venus Express. <i>Icarus</i> , 2015, 253, 1-15.	1.1	36
34	Coordinated Hubble Space Telescope and Venus Express Observations of Venus <sup>TM</sup> upper cloud deck. <i>Icarus</i> , 2015, 258, 309-336.	1.1	35
35	Night side distribution of SO <sub>2</sub> content in Venus <sup>TM</sup> upper mesosphere. <i>Icarus</i> , 2017, 294, 58-71.	1.1	32
36	Search for horizontal and vertical variations of CO in the day and night side lower mesosphere of Venus from CSHELL/IRTF $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0010.gif" overflow="scroll" \rangle \langle \text{mml:mn} \rangle 4.53 \langle \text{mml:mn} \rangle \langle \text{mml:mpace width="0.25em" /} \rangle \langle \text{mml:mi mathvariant="normal" } \rangle \frac{1}{4} \langle \text{mml:mi} \rangle \langle \text{mml:mi mathvariant="normal" } \rangle m \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ observations. <i>Planetary and Space Science</i> , 2015, 113-114, 256-263.	0.9	30

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37	Preliminary study of Venus cloud layers with polarimetric data from SPICAV/VEx. Planetary and Space Science, 2015, 113-114, 159-168.	0.9	30
38	Long-term Variations of Venus's 365 nm Albedo Observed by Venus Express, Akatsuki, MESSENGER, and the Hubble Space Telescope. Astronomical Journal, 2019, 158, 126.	1.9	30
39	Modeling the albedo of Earth-like magma ocean planets with H <sub>2</sub> O-CO <sub>2</sub> atmospheres. Icarus, 2019, 317, 583-590.	1.1	30
40	Characterisation of the hydrospheres of TRAPPIST-1 planets. Astronomy and Astrophysics, 2021, 647, A53.	2.1	30
41	HDO and SO <sub>2</sub> thermal mapping on Venus. Astronomy and Astrophysics, 2019, 623, A70.	2.1	26
42	ARES IV: Probing the Atmospheres of the Two Warm Small Planets HD 106315c and HD 3167c with the HST/WFC3 Camera*. Astronomical Journal, 2021, 161, 19.	1.9	25
43	Escape of rock-forming volatile elements and noble gases from planetary embryos. Icarus, 2020, 347, 113772.	1.1	21
44	Discovery of cloud top ozone on Venus. Icarus, 2019, 319, 491-498.	1.1	19
45	HDO and SO <sub>2</sub> thermal mapping on Venus. Astronomy and Astrophysics, 2020, 639, A69.	2.1	19
46	The VenSpec suite on the ESA EnVision mission to Venus. , 2019, , .		16
47	On Venus' cloud top chemistry, convective activity and topography: A perspective from HST. Icarus, 2020, 335, 113372.	1.1	11
48	Sulfur monoxide dimer chemistry as a possible source of polysulfur in the upper atmosphere of Venus. Nature Communications, 2021, 12, 175.	5.8	11
49	The gyromagnetic ratio of rapidly rotating compact stars in general relativity. Classical and Quantum Gravity, 2003, 20, 3051-3060.	1.5	9
50	Simulations of the latitudinal variability of CO-like and OCS-like passive tracers below the clouds of Venus using the Laboratoire de Météorologie Dynamique GCM. Journal of Geophysical Research E: Planets, 2013, 118, 1983-1990.	1.5	7
51	The Venus Emissivity Mapper (VEM): obtaining global mineralogy of Venus from orbit. , 2018, , .		7
52	Water content trends in K2-138 and other low-mass multi-planetary systems. Astronomy and Astrophysics, 2022, 660, A102.	2.1	7
53	The Spatial and Temporal Distribution of Nighttime Ozone and Sulfur Dioxide in the Venus Mesosphere as Deduced From SPICAV UV Stellar Occultations. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006625.	1.5	6
54	Evidence for SO <sub>2</sub> latitudinal variations below the clouds of Venus. Astronomy and Astrophysics, 2021, 648, L8.	2.1	6

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55	The Venus Emissivity Mapper (VEM) concept. , 2016, , .		5
56	Instrumental requirements for the study of Venusâ€™ cloud top using the UV imaging spectrometer VeSUV. <i>Advances in Space Research</i> , 2021, 68, 275-291.	1.2	5
57	The impact of turbulent vertical mixing in the Venus clouds on chemical tracers. <i>Icarus</i> , 2022, 386, 115148.	1.1	5
58	WATER FORMATION IN THE UPPER ATMOSPHERE OF THE EARLY EARTH. <i>Astrophysical Journal Letters</i> , 2015, 807, L29.	3.0	4
59	Variability of the nitric oxide nightglow at Venus during solar minimum. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 846-853.	1.5	3
60	The Venus Emissivity Mapper concept. , 2017, , .		3
61	Thermal evolution of an early magma ocean in interaction with the atmosphere: conditions for the condensation of a water ocean. <i>BIO Web of Conferences</i> , 2014, 2, 01006.	0.1	1
62	Observability of temperate exoplanets with Ariel. <i>Experimental Astronomy</i> , 2022, 53, 375-390.	1.6	1
63	Venus: Tickling the clouds. <i>Nature Astronomy</i> , 2017, 1, .	4.2	0
64	Formation and Evolution of Protoatmospheres. <i>Space Sciences Series of ISSI</i> , 2016, , 193-251.	0.0	0
65	On the Stability of Low-mass Planets with Supercritical Hydrospheres. <i>Astrophysical Journal</i> , 2022, 931, 143.	1.6	0