

M S Chaffin

List of Publications by Year in descending order

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Version: 2024-02-01

44
papers

2,129
citations

236925

25
h-index

243625

44
g-index

52
all docs

52
docs citations

52
times ranked

1311
citing authors

#	ARTICLE	IF	CITATIONS
1	The Emirates Mars Mission. <i>Space Science Reviews</i> , 2022, 218, 4.	8.1	29
2	Reappraising the Production and Transfer of Hydrogen Atoms From the Middle to the Upper Atmosphere of Mars at Times of Elevated Water Vapor. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	5
3	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. <i>Icarus</i> , 2021, 353, 113498.	2.5	16
4	Estimate of the D/H Ratio in the Martian Upper Atmosphere from the Low Spectral Resolution Mode of MAVEN/IUVS. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006814.	3.6	6
5	Martian water loss to space enhanced by regional dust storms. <i>Nature Astronomy</i> , 2021, 5, 1036-1042.	10.1	40
6	Emirates Mars Mission Characterization of Mars Atmosphere Dynamics and Processes. <i>Space Science Reviews</i> , 2021, 217, .	8.1	23
7	MOSAIC: A Satellite Constellation to Enable Groundbreaking Mars Climate System Science and Prepare for Human Exploration. <i>Planetary Science Journal</i> , 2021, 2, 211.	3.6	6
8	Effect of the 2018 Martian Global Dust Storm on the CO ₂ Density in the Lower Nightside Thermosphere Observed From MAVEN/IUVS Lyman- α Absorption. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL082889.	4.0	13
9	Martian Oxygen and Hydrogen Upper Atmospheres Responding to Solar and Dust Storm Drivers: Hisaki Space Telescope Observations. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006500.	3.6	6
10	Higher Martian Atmospheric Temperatures at All Altitudes Increase the D/H Fractionation Factor and Water Loss. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006626.	3.6	14
11	Localized Ionization Hypothesis for Transient Ionospheric Layers. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 4870-4880.	2.4	19
12	Seasonal Variability of Deuterium in the Upper Atmosphere of Mars. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 2152-2164.	2.4	13
13	Proton Aurora on Mars: A Dayside Phenomenon Pervasive in Southern Summer. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 10533-10548.	2.4	24
14	Hydrogen escape from Mars enhanced by deep convection in dust storms. <i>Nature Astronomy</i> , 2018, 2, 126-132.	10.1	112
15	Investigations of the Mars Upper Atmosphere with ExoMars Trace Gas Orbiter. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	13
16	Mars H Escape Rates Derived From MAVEN/IUVS Lyman Alpha Brightness Measurements and Their Dependence on Model Assumptions. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 2192-2210.	3.6	42
17	Global Aurora on Mars During the September 2017 Space Weather Event. <i>Geophysical Research Letters</i> , 2018, 45, 7391-7398.	4.0	44
18	Loss of the Martian atmosphere to space: Present-day loss rates determined from MAVEN observations and integrated loss through time. <i>Icarus</i> , 2018, 315, 146-157.	2.5	216

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19	Discovery of a proton aurora at Mars. <i>Nature Astronomy</i> , 2018, 2, 802-807.	10.1	50
20	Significant Space Weather Impact on the Escape of Hydrogen From Mars. <i>Geophysical Research Letters</i> , 2018, 45, 8844-8852.	4.0	29
21	Martian Thermospheric Response to an X8.2 Solar Flare on 10 September 2017 as Seen by MAVEN/IUVS. <i>Geophysical Research Letters</i> , 2018, 45, 7312-7319.	4.0	24
22	Elevated atmospheric escape of atomic hydrogen from Mars induced by high-altitude water. <i>Nature Geoscience</i> , 2017, 10, 174-178.	12.9	105
23	Variability of D and H in the Martian upper atmosphere observed with the MAVEN IUVS echelle channel. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 2336-2344.	2.4	64
24	Martian mesospheric cloud observations by IUVS on MAVEN: Thermal tides coupled to the upper atmosphere. <i>Geophysical Research Letters</i> , 2017, 44, 4709-4715.	4.0	23
25	Detection of a persistent meteoric metal layer in the Martian atmosphere. <i>Nature Geoscience</i> , 2017, 10, 401-404.	12.9	52
26	Nitric oxide nightglow and Martian mesospheric circulation from MAVEN/IUVS observations and LMDâ€MCM predictions. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 5782-5797.	2.4	36
27	SPICAM on Mars Express: A 10 year in-depth survey of the Martian atmosphere. <i>Icarus</i> , 2017, 297, 195-216.	2.5	64
28	IUVS echelleâ€mode observations of interplanetary hydrogen: Standard for calibration and reference for cavity variations between Earth and Mars during MAVEN cruise. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 2089-2105.	2.4	16
29	Seasonal Changes in Hydrogen Escape From Mars Through Analysis of HST Observations of the Martian Exosphere Near Perihelion. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 11,756.	2.4	22
30	The Variability of Atmospheric Deuterium Brightness at Mars: Evidence for Seasonal Dependence. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 10,811.	2.4	15
31	Ultraviolet observations of the hydrogen coma of comet C/2013 A1 (Siding Spring) by MAVEN/IUVS. <i>Geophysical Research Letters</i> , 2015, 42, 8803-8809.	4.0	11
32	MAVEN IUVS observations of the aftermath of the Comet Siding Spring meteor shower on Mars. <i>Geophysical Research Letters</i> , 2015, 42, 4755-4761.	4.0	56
33	Nonmigrating tides in the Martian atmosphere as observed by MAVEN IUVS. <i>Geophysical Research Letters</i> , 2015, 42, 9057-9063.	4.0	43
34	Retrieval of CO ₂ and N ₂ in the Martian thermosphere using dayglow observations by IUVS on MAVEN. <i>Geophysical Research Letters</i> , 2015, 42, 9040-9049.	4.0	43
35	Study of the Martian cold oxygen corona from the Oâ€%l 130.4â€%nm by IUVS/MAVEN. <i>Geophysical Research Letters</i> , 2015, 42, 9031-9039.	4.0	21
36	The structure and variability of Mars upper atmosphere as seen in MAVEN/IUVS dayglow observations. <i>Geophysical Research Letters</i> , 2015, 42, 9023-9030.	4.0	95

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37	Three-dimensional structure in the Mars H corona revealed by IUVS on MAVEN. Geophysical Research Letters, 2015, 42, 9001-9008.	4.0	67
38	MAVEN IUVS observation of the hot oxygen corona at Mars. Geophysical Research Letters, 2015, 42, 9009-9014.	4.0	77
39	New observations of molecular nitrogen in the Martian upper atmosphere by IUVS on MAVEN. Geophysical Research Letters, 2015, 42, 9050-9056.	4.0	41
40	Probing the Martian atmosphere with MAVEN/IUVS stellar occultations. Geophysical Research Letters, 2015, 42, 9064-9070.	4.0	42
41	MAVEN observations of the response of Mars to an interplanetary coronal mass ejection. Science, 2015, 350, aad0210.	12.6	166
42	Discovery of diffuse aurora on Mars. Science, 2015, 350, aad0313.	12.6	98
43	Early MAVEN Deep Dip campaign reveals thermosphere and ionosphere variability. Science, 2015, 350, aad0459.	12.6	90
44	Unexpected variability of Martian hydrogen escape. Geophysical Research Letters, 2014, 41, 314-320.	4.0	137