R Todd Clancy

List of Publications by Year
in descending order

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71	6,901	101543	155660
papers	citations	36 h-index	55 g-index

75	75	75	2996
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Explaining NOMAD D/H Observations by Cloudâ€Induced Fractionation of Water Vapor on Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	11
2	Water vapor saturation and ice cloud occurrence in the atmosphere of Mars. Planetary and Space Science, 2022, 212, 105390.	1.7	8
3	Planetâ€Wide Ozone Destruction in the Middle Atmosphere on Mars During Global Dust Storm. Geophysical Research Letters, 2022, 49, .	4.0	7
4	Mars Next Orbiter Science Analysis Group (NEX-SAG): White Paper Report to the 2023-2032 Planetary Sciences and Astrobiology Decadal Survey. , 2021, 53, .		1
5	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
6	Mars perihelion cloud trails as revealed by MARCI: Mesoscale topographically focused updrafts and gravity wave forcing of high altitude clouds. Icarus, 2021, 362, 114411.	2.5	9
7	First Detection and Thermal Characterization of Terminator CO₂Ice Clouds With ExoMars/NOMAD. Geophysical Research Letters, 2021, 48, .	4.0	12
8	Explanation for the Increase in Highâ€Altitude Water on Mars Observed by NOMAD During the 2018 Global Dust Storm. Geophysical Research Letters, 2020, 47, e2019GL084354.	4.0	62
9	Strong Variability of Martian Water Ice Clouds During Dust Storms Revealed From ExoMars Trace Gas Orbiter/NOMAD. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006250.	3.6	39
10	Mapping water ice clouds on Mars with MRO/MARCI. Icarus, 2019, 332, 24-49.	2.5	45
11	Martian dust storm impact on atmospheric H2O and D/H observed by ExoMars Trace Gas Orbiter. Nature, 2019, 568, 521-525.	27.8	107
12	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
13	Water Vapor Vertical Profiles on Mars in Dust Storms Observed by TGO/NOMAD. Journal of Geophysical Research E: Planets, 2019, 124, 3482-3497.	3.6	88
14	Investigations of the Mars Upper Atmosphere with ExoMars Trace Gas Orbiter. Space Science Reviews, 2018, 214, 1.	8.1	13
15	First measurements of ClO in the Venus atmosphere â€“ Altitude dependence and temporal variation. Icarus, 2018, 313, 15-24.	2.5	35
16	Vertical profiles of Mars 1.27ÂÂµm O 2 dayglow from MRO CRISM limb spectra: Seasonal/global behaviors, comparisons to LMDGCM simulations, and a global definition for Mars water vapor profiles. Icarus, 2017, 293, 132-156.	2.5	58
17	Diurnal observations of HCl altitude variation in the 70â€“100Âkm mesosphere of Venus. Icarus, 2017, 290, 156-161.	2.5	9
18	Venus's winds and temperatures during the MESSENGER's flyby: An approximation to a threeâ€dimensional instantaneous state of the atmosphere. Geophysical Research Letters, 2017, 44, 3907-3915.	4.0	18

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19	Understanding Mars and Its Atmosphere. , 2017, , 3-19.		10
20	History of Mars Atmosphere Observations. , 2017, , 20-41.		4
21	Thermal Structure and Composition. , 2017, , 42-75.		19
22	Mars Clouds. , 2017, , 76-105.		24
23	Radiative Process: Techniques and Applications. , 2017, , 106-171.		21
24	The Martian Planetary Boundary Layer. , 2017, , 172-202.		14
25	Mesoscale Meteorology. , 2017, , 203-228.		5
26	The Global Circulation. , 2017, , 229-294.		31
27	The Mars Dust Cycle. , 2017, , 295-337.		70
28	The Water Cycle. , 2017, , 338-373.		24
29	The CO2 Cycle. , 2017, , 374-404.		5
30	Atmospheric Photochemistry. , 2017, , 405-432.		18
31	Upper Neutral Atmosphere and Ionosphere. , 2017, , 433-463.		33
32	Solar Wind Interaction and Atmospheric Escape. , 2017, , 464-496.		18
33	Recent Climate Variations. , 2017, , 497-525.		8
34	The Early Mars Climate System. , 2017, , 526-568.		9
35	Daily global mapping of Mars ozone column abundances with MARCI UV band imaging. Icarus, 2016, 266, 112-133.	2.5	50
36	Doppler winds mapped around the lower thermospheric terminator of Venus: 2012 solar transit observations from the James Clerk Maxwell Telescope. Icarus, 2015, 254, 233-258.	2.5	8

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37	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
38	Vertical distribution of dust and water ice aerosols from CRISM limbâ€geometry observations. Journal of Geophysical Research E: Planets, 2013, 118, 321-334.	3.6	74
39	Observations of HCl altitude dependence and temporal variation in the 70â€“100 km mesosphere of Venus. Icarus, 2012, 220, 618-626.	2.5	41
40	Extensive MRO CRISM observations of 1.27 Î¼m O₂ airglow in Mars polar night and their comparison to MRO MCS temperature profiles and LMD GCM simulations. Journal of Geophysical Research, 2012, 117, .	3.3	51
41	Circulation of the Venus upper mesosphere/lower thermosphere: Doppler wind measurements from 2001â€“2009 inferior conjunction, sub-millimeter CO absorption line observations. Icarus, 2012, 217, 794-812.	2.5	27
42	Thermal structure and CO distribution for the Venus mesosphere/lower thermosphere: 2001â€“2009 inferior conjunction sub-millimeter CO absorption line observations. Icarus, 2012, 217, 779-793.	2.5	59
43	Extension of atmospheric dust loading to high altitudes during the 2001 Mars dust storm: MGS TES limb observations. Icarus, 2010, 207, 98-109.	2.5	87
44	Sulfur chemistry in the Venus mesosphere from SO2 and SO microwave spectra. Icarus, 2010, 208, 49-60.	2.5	88
45	Mesospheric chemistry of vibrationally excited O₃ from diurnal microwave measurements of O₃(Î½₁), O₃(Î½₂), O₃(Î½₃), and O₃(ground state). Journal of Geophysical Research, 2010, 115, .	3.3	1
46	Mars Reconnaissance Orbiter Mars Color Imager (MARCI): Instrument description, calibration, and performance. Journal of Geophysical Research, 2009, 114, .	3.3	79
47	Valles Marineris cloud trails. Journal of Geophysical Research, 2009, 114, .	3.3	15
48	Wavelength dependence of dust aerosol single scattering albedo as observed by the Compact Reconnaissance Imaging Spectrometer. Journal of Geophysical Research, 2009, 114, .	3.3	196
49	Compact Reconnaissance Imaging Spectrometer observations of water vapor and carbon monoxide. Journal of Geophysical Research, 2009, 114, .	3.3	137
50	Climate, weather, and north polar observations from the Mars Reconnaissance Orbiter Mars Color Imager. Icarus, 2008, 194, 501-512.	2.5	58
51	Heterogeneous chemistry in the atmosphere of Mars. Nature, 2008, 454, 971-975.	27.8	130
52	Context Camera Investigation on board the Mars Reconnaissance Orbiter. Journal of Geophysical Research, 2007, 112, .	3.3	953
53	CRISM multispectral summary products: Parameterizing mineral diversity on Mars from reflectance. Journal of Geophysical Research, 2007, 112, .	3.3	304
54	Compact Reconnaissance Imaging Spectrometer for Mars (CRISM) on Mars Reconnaissance Orbiter (MRO). Journal of Geophysical Research, 2007, 112, .	3.3	796

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55	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
56	Mars equatorial mesospheric clouds: Global occurrence and physical properties from Mars Global Surveyor Thermal Emission Spectrometer and Mars Orbiter Camera limb observations. Journal of Geophysical Research, 2007, 112, .	3.3	66
57	Constraints on dust aerosols from the Mars Exploration Rovers using MGS overflights and Mini-TES. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	159
58	HDO in the mesosphere: Observation and modeling of novel isotopic variability. Journal of Geophysical Research, 2003, 108, .	3.3	6
59	Mars aerosol studies with the MGS TES emission phase function observations: Optical depths, particle sizes, and ice cloud types versus latitude and solar longitude. Journal of Geophysical Research, 2003, 108, .	3.3	253
60	Constraints on the size of Martian aerosols from Thermal Emission Spectrometer observations. Journal of Geophysical Research, 2003, 108, .	3.3	203
61	Mars Color Imager (MARCI) on the Mars Climate Orbiter. Journal of Geophysical Research, 2001, 106, 17651-17672.	3.3	61
62	Mars Global Surveyor Thermal Emission Spectrometer experiment: Investigation description and surface science results. Journal of Geophysical Research, 2001, 106, 23823-23871.	3.3	903
63	An intercomparison of ground-based millimeter, MGS TES, and Viking atmospheric temperature measurements: Seasonal and interannual variability of temperatures and dust loading in the global Mars atmosphere. Journal of Geophysical Research, 2000, 105, 9553-9571.	3.3	340
64	CO2ice clouds in the upper atmosphere of Mars. Geophysical Research Letters, 1998, 25, 489-492.	4.0	68
65	Mesospheric observations and modeling of the Zeeman split 233.9 GHz18O16O Line. Geophysical Research Letters, 1997, 24, 1631-1634.	4.0	5
66	Mars ozone measurements near the 1995 aphelion: Hubble space telescope ultraviolet spectroscopy with the faint object spectrograph. Journal of Geophysical Research, 1996, 101, 12777-12783.	3.3	45
67	Annual (perihelion-aphelion) cycles in the photochemical behavior of the global Mars atmosphere. Journal of Geophysical Research, 1996, 101, 12785-12790.	3.3	89
68	A new model for Mars atmospheric dust based upon analysis of ultraviolet through infrared observations from Mariner 9, Viking, and Phobos. Journal of Geophysical Research, 1995, 100, 5251.	3.3	175
69	Preliminary results from POAM II: Stratospheric ozone at high northern latitudes. Geophysical Research Letters, 1995, 22, 2733-2736.	4.0	24
70	A Photochemical Model of the Martian Atmosphere. Icarus, 1994, 111, 124-150.	2.5	330
71	Microwave spectra of terrestrial mesospheric CO. Journal of Geophysical Research, 1982, 87, 5009-5014.	3.3	27