

Ian R Thomas

List of Publications by Year in descending order

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51
papers

1,951
citations

279798

23
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44
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85
docs citations

85
times ranked

1295
citing authors

#	ARTICLE	IF	CITATIONS
1	Explaining NOMAD D/H Observations by Cloud-Induced Fractionation of Water Vapor on Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	11
2	Removal of straylight from ExoMars NOMAD-UVIS observations. Planetary and Space Science, 2022, 218, 105432.	1.7	3
3	Calibration of NOMAD on ESA's ExoMars Trace Gas Orbiter: Part 1 – The Solar Occultation channel. Planetary and Space Science, 2022, 218, 105411.	1.7	8
4	Vertical Aerosol Distribution and Mesospheric Clouds From ExoMars UVIS. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	6
5	Martian CO ₂ Ice Observation at High Spectral Resolution With ExoMars/TGO NOMAD. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	5
6	Calibration of the NOMAD-UVIS data. Planetary and Space Science, 2022, 218, 105504.	1.7	5
7	Variations in Vertical CO/CO ₂ Profiles in the Martian Mesosphere and Lower Thermosphere Measured by the ExoMars TGO/NOMAD: Implications of Variations in Eddy Diffusion Coefficient. Geophysical Research Letters, 2022, 49, .	4.0	7
8	Density and Temperature of the Upper Mesosphere and Lower Thermosphere of Mars Retrieved From the OI 557.7Ånm Dayglow Measured by TGO/NOMAD. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	6
9	The Mars Oxygen Visible Dayglow: A Martian Year of NOMAD/UVIS Observations. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	2
10	Planet-Wide Ozone Destruction in the Middle Atmosphere on Mars During Global Dust Storm. Geophysical Research Letters, 2022, 49, .	4.0	7
11	The Deuterium Isotopic Ratio of Water Released From the Martian Caps as Measured With TGO/NOMAD. Geophysical Research Letters, 2022, 49, .	4.0	15
12	Comprehensive investigation of Mars methane and organics with ExoMars/NOMAD. Icarus, 2021, 357, 114266.	2.5	27
13	Machine learning for automatic identification of new minor species. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 259, 107361.	2.3	2
14	Transient HCl in the atmosphere of Mars. Science Advances, 2021, 7, .	10.3	37
15	Water heavily fractionated as it ascends on Mars as revealed by ExoMars/NOMAD. Science Advances, 2021, 7, .	10.3	31
16	First Observation of the Oxygen 630Ånm Emission in the Martian Dayglow. Geophysical Research Letters, 2021, 48, e2020GL092334.	4.0	8
17	Probing the Atmospheric Cl Isotopic Ratio on Mars: Implications for Planetary Evolution and Atmospheric Chemistry. Geophysical Research Letters, 2021, 48, e2021GL092650.	4.0	7
18	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

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19	The climatology of carbon monoxide on Mars as observed by NOMAD nadir-geometry observations. <i>Icarus</i> , 2021, 362, 114404.	2.5	11
20	Martian water loss to space enhanced by regional dust storms. <i>Nature Astronomy</i> , 2021, 5, 1036-1042.	10.1	40
21	ExoMars TGO/NOMADâ€UUVIS Vertical Profiles of Ozone: 2. The Highâ€Altitude Layers of Atmospheric Ozone. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2021JE006834.	3.6	14
22	A Global and Seasonal Perspective of Martian Water Vapor From ExoMars/NOMAD. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, .	3.6	8
23	ExoMars TGO/NOMADâ€UUVIS Vertical Profiles of Ozone: 1. Seasonal Variation and Comparison to Water. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2021JE006837.	3.6	18
24	First Detection and Thermal Characterization of Terminator CO ₂ Ice Clouds With ExoMars/NOMAD. <i>Geophysical Research Letters</i> , 2021, 48, .	4.0	12
25	Calibration of NOMAD on ESA's ExoMars Trace Gas Orbiter: Part 2 â€“ The Limb, Nadir and Occultation (LNO) channel. <i>Planetary and Space Science</i> , 2021, , 105410.	1.7	3
26	Explanation for the Increase in Highâ€Altitude Water on Mars Observed by NOMAD During the 2018 Global Dust Storm. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL084354.	4.0	62
27	Strong Variability of Martian Water Ice Clouds During Dust Storms Revealed From ExoMars Trace Gas Orbiter/NOMAD. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006250.	3.6	39
28	Detection of green line emission in the dayside atmosphere of Mars from NOMAD-TGO observations. <i>Nature Astronomy</i> , 2020, 4, 1049-1052.	10.1	13
29	No detection of methane on Mars from early ExoMars Trace Gas Orbiter observations. <i>Nature</i> , 2019, 568, 517-520.	27.8	111
30	Martian dust storm impact on atmospheric H ₂ O and D/H observed by ExoMars Trace Gas Orbiter. <i>Nature</i> , 2019, 568, 521-525.	27.8	107
31	Development of a knowledge management system for the NOMAD instrument onboard the ExoMars TGO spacecraft. <i>Aircraft Engineering and Aerospace Technology</i> , 2019, 92, 81-92.	1.2	2
32	Water Vapor Vertical Profiles on Mars in Dust Storms Observed by TGO/NOMAD. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 3482-3497.	3.6	88
33	Methane on Mars: New insights into the sensitivity of CH ₄ with the NOMAD/ExoMars spectrometer through its first in-flight calibration. <i>Icarus</i> , 2019, 321, 671-690.	2.5	32
34	The VenSpec suite on the ESA EnVision mission to Venus. , 2019, , .		16
35	Investigations of the Mars Upper Atmosphere with ExoMars Trace Gas Orbiter. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	13
36	NOMAD, an Integrated Suite of Three Spectrometers for the ExoMars Trace Gas Mission: Technical Description, Science Objectives and Expected Performance. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	95

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37	The Oxford space environment goniometer: A new experimental setup for making directional emissivity measurements under a simulated space environment. <i>Review of Scientific Instruments</i> , 2017, 88, 124502.	1.3	10
38	NOMAD spectrometer on the ExoMars trace gas orbiter mission: part 2” design, manufacturing, and testing of the ultraviolet and visible channel. <i>Applied Optics</i> , 2017, 56, 2771.	2.1	40
39	Improved algorithm for the transmittance estimation of spectra obtained with SOIR/Venus Express. <i>Applied Optics</i> , 2016, 55, 9275.	2.1	21
40	Constraints on olivine-rich rock types on the Moon as observed by Diviner and M ³ : Implications for the formation of the lunar crust. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 1342-1361.	3.6	29
41	Optical and radiometric models of the NOMAD instrument part II: the infrared channels - SO and LNO. <i>Optics Express</i> , 2016, 24, 3790.	3.4	25
42	SINBAD flight software, the on-board software of NOMAD in ExoMars 2016. <i>Proceedings of SPIE</i> , 2016, , .	0.8	0
43	Optical and radiometric models of the NOMAD instrument part I: the UVIS channel. <i>Optics Express</i> , 2015, 23, 30028.	3.4	26
44	NOMAD spectrometer on the ExoMars trace gas orbiter mission: part 1” design, manufacturing and testing of the infrared channels. <i>Applied Optics</i> , 2015, 54, 8494.	2.1	58
45	Global assessment of pure crystalline plagioclase across the Moon and implications for the evolution of the primary crust. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 1516-1545.	3.6	86
46	A new experimental setup for making thermal emission measurements in a simulated lunar environment. <i>Review of Scientific Instruments</i> , 2012, 83, 124502.	1.3	30
47	Thermal infrared emissivity measurements under a simulated lunar environment: Application to the Diviner Lunar Radiometer Experiment. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	50
48	Laboratory emissivity measurements of the plagioclase solid solution series under varying environmental conditions. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	50
49	The Lunar Reconnaissance Orbiter Diviner Lunar Radiometer Experiment. <i>Space Science Reviews</i> , 2010, 150, 125-160.	8.1	309
50	Global Silicate Mineralogy of the Moon from the Diviner Lunar Radiometer. <i>Science</i> , 2010, 329, 1507-1509.	12.6	154
51	Highly Silicic Compositions on the Moon. <i>Science</i> , 2010, 329, 1510-1513.	12.6	175