

# Ian R Thomas

## List of Publications by Year in descending order

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51  
papers

1,951  
citations

279798

23  
h-index

243625

44  
g-index

85  
all docs

85  
docs citations

85  
times ranked

1295  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Lunar Reconnaissance Orbiter Diviner Lunar Radiometer Experiment. <i>Space Science Reviews</i> , 2010, 150, 125-160.	8.1	309
2	Highly Silicic Compositions on the Moon. <i>Science</i> , 2010, 329, 1510-1513.	12.6	175
3	Global Silicate Mineralogy of the Moon from the Diviner Lunar Radiometer. <i>Science</i> , 2010, 329, 1507-1509.	12.6	154
4	No detection of methane on Mars from early ExoMars Trace Gas Orbiter observations. <i>Nature</i> , 2019, 568, 517-520.	27.8	111
5	Martian dust storm impact on atmospheric H <sub>2</sub> O and D/H observed by ExoMars Trace Gas Orbiter. <i>Nature</i> , 2019, 568, 521-525.	27.8	107
6	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
7	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
8	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
9	Explanation for the Increase in High-Altitude Water on Mars Observed by NOMAD During the 2018 Global Dust Storm. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL084354.	4.0	62
10	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
11	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
12	Laboratory emissivity measurements of the plagioclase solid solution series under varying environmental conditions. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	50
13	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
14	Martian water loss to space enhanced by regional dust storms. <i>Nature Astronomy</i> , 2021, 5, 1036-1042.	10.1	40
15	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
16	Transient HCl in the atmosphere of Mars. <i>Science Advances</i> , 2021, 7, .	10.3	37
17	Methane on Mars: New insights into the sensitivity of CH <sub>4</sub> with the NOMAD/ExoMars spectrometer through its first in-flight calibration. <i>Icarus</i> , 2019, 321, 671-690.	2.5	32
18	Water heavily fractionated as it ascends on Mars as revealed by ExoMars/NOMAD. <i>Science Advances</i> , 2021, 7, .	10.3	31

#	ARTICLE	IF	CITATIONS
19	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
20	Constraints on olivine-rich rock types on the Moon as observed by Diviner and M <sup>3</sup> : Implications for the formation of the lunar crust. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 1342-1361.	3.6	29
21	Comprehensive investigation of Mars methane and organics with ExoMars/NOMAD. <i>Icarus</i> , 2021, 357, 114266.	2.5	27
22	Optical and radiometric models of the NOMAD instrument part I: the UVIS channel. <i>Optics Express</i> , 2015, 23, 30028.	3.4	26
23	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
24	Improved algorithm for the transmittance estimation of spectra obtained with SOIR/Venus Express. <i>Applied Optics</i> , 2016, 55, 9275.	2.1	21
25	ExoMars TGO/NOMAD-UVIS 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
26	The VenSpec suite on the ESA EnVision mission to Venus. , 2019, , .		16
27	Annual Appearance of Hydrogen Chloride on Mars and a Striking Similarity With the Water Vapor Vertical Distribution Observed by TGO/NOMAD. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL092506.	4.0	15
28	The Deuterium Isotopic Ratio of Water Released From the Martian Caps as Measured With TGO/NOMAD. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	15
29	ExoMars TGO/NOMAD-UVIS Vertical Profiles of Ozone: 2. The High-Altitude Layers of Atmospheric Ozone. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2021JE006834.	3.6	14
30	Investigations of the Mars Upper Atmosphere with ExoMars Trace Gas Orbiter. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	13
31	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
32	First Detection and Thermal Characterization of Terminator CO <sub>2</sub> Ice Clouds With ExoMars/NOMAD. <i>Geophysical Research Letters</i> , 2021, 48, .	4.0	12
33	The climatology of carbon monoxide on Mars as observed by NOMAD nadir-geometry observations. <i>Icarus</i> , 2021, 362, 114404.	2.5	11
34	Explaining NOMAD D/H Observations by Cloud-Induced Fractionation of Water Vapor on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	11
35	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
36	First Observation of the Oxygen 630Ånm Emission in the Martian Dayglow. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL092334.	4.0	8

#	ARTICLE	IF	CITATIONS
37	A Global and Seasonal Perspective of Martian Water Vapor From ExoMars/NOMAD. Journal of Geophysical Research E: Planets, 2021, 126, .	3.6	8
38	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
39	Probing the Atmospheric Cl Isotopic Ratio on Mars: Implications for Planetary Evolution and Atmospheric Chemistry. Geophysical Research Letters, 2021, 48, e2021GL092650.	4.0	7
40	Variations in Vertical CO <sub>2</sub> 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
41	Planet-Wide Ozone Destruction in the Middle Atmosphere on Mars During Global Dust Storm. Geophysical Research Letters, 2022, 49, .	4.0	7
42	Vertical Aerosol Distribution and Mesospheric Clouds From ExoMars UVIS. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	6
43	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
44	Martian CO <sub>2</sub> Ice Observation at High Spectral Resolution With ExoMars/TGO NOMAD. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	5
45	Calibration of the NOMAD-UVIS data. Planetary and Space Science, 2022, 218, 105504.	1.7	5
46	Removal of straylight from ExoMars NOMAD-UVIS observations. Planetary and Space Science, 2022, 218, 105432.	1.7	3
47	Calibration of NOMAD on ESA's ExoMars Trace Gas Orbiter: Part 2 – The Limb, Nadir and Occultation (LNO) channel. Planetary and Space Science, 2021, , 105410.	1.7	3
48	Development of a knowledge management system for the NOMAD instrument onboard the ExoMars TGO spacecraft. Aircraft Engineering and Aerospace Technology, 2019, 92, 81-92.	1.2	2
49	Machine learning for automatic identification of new minor species. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 259, 107361.	2.3	2
50	The Mars Oxygen Visible Dayglow: A Martian Year of NOMAD/UVIS Observations. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	2
51	SINBAD flight software, the on-board software of NOMAD in ExoMars 2016. Proceedings of SPIE, 2016, , .	0.8	0