Lori L Neary

List of Publications by Year
in descending order

52 papers	1,663 citations	257101 24 h-index	301761 39 g-index
74 all docs	74 docs citations	74 times ranked	1474 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, .	1.5	11
2	Observation Capability of a Ground-Based Terahertz Radiometer for Vertical Profiles of Oxygen and Water Abundances in Martian Atmosphere. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-11.	2.7	1
3	Variations in Vertical CO/CO₂ 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, .	1.5	7
4	Planetâ€Wide Ozone Destruction in the Middle Atmosphere on Mars During Global Dust Storm. Geophysical Research Letters, 2022, 49, .	1.5	7
5	The Deuterium Isotopic Ratio of Water Released From the Martian Caps as Measured With TGO/NOMAD. Geophysical Research Letters, 2022, 49, .	1.5	15
6	Comprehensive investigation of Mars methane and organics with ExoMars/NOMAD. Icarus, 2021, 357, 114266.	1.1	27
7	Machine learning for automatic identification of new minor species. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 259, 107361.	1.1	2
8	Impact of gradients at the martian terminator on the retrieval of ozone from SPICAM/MEx. Icarus, 2021, 353, 113598.	1.1	8
9	Radiation Environment and Doses on Mars at Oxia Planum and Mawrth Vallis: Support for Exploration at Sites With High Biosignature Preservation Potential. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006488.	1.5	14
10	Water heavily fractionated as it ascends on Mars as revealed by ExoMars/NOMAD. Science Advances, 2021, 7, .	4.7	31
11	Seasonal and Spatial Variability of Carbon Monoxide (CO) in the Martian Atmosphere From PFS/MEX Observations. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006480.	1.5	6
12	Multi-model Meteorological and Aeolian Predictions for Mars 2020 and the Jezero Crater Region. Space Science Reviews, 2021, 217, 20.	3.7	35
13	Probing the Atmospheric Cl Isotopic Ratio on Mars: Implications for Planetary Evolution and Atmospheric Chemistry. Geophysical Research Letters, 2021, 48, e2021GL092650.	1.5	7
14	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.	1.5	15
15	The climatology of carbon monoxide on Mars as observed by NOMAD nadir-geometry observations. Icarus, 2021, 362, 114404.	1.1	11
16	ExoMars TGO/NOMADâ€UVIS Vertical Profiles of Ozone: 2. The Highâ€Altitude Layers of Atmospheric Ozone. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006834.	1.5	14
17	A Global and Seasonal Perspective of Martian Water Vapor From ExoMars/NOMAD. Journal of Geophysical Research E: Planets, 2021, 126, .	1.5	8
18	First Detection and Thermal Characterization of Terminator CO₂Ice Clouds With ExoMars/NOMAD. Geophysical Research Letters, 2021, 48, .	1.5	12

#	Article	IF	Citations
19	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.	1.5	62
20	Mars atmospheric chemistry simulations with the GEM-Mars general circulation model. Icarus, 2019, 326, 197-224.	1.1	52
21	No detection of methane on Mars from early ExoMars Trace Gas Orbiter observations. Nature, 2019, 568, 517-520.	13.7	111
22	Martian dust storm impact on atmospheric H2O and D/H observed by ExoMars Trace Gas Orbiter. Nature, 2019, 568, 521-525.	13.7	107
23	Independent confirmation of a methane spike on Mars and a source region east of Gale Crater. Nature Geoscience, 2019, 12, 326-332.	5.4	63
24	Ground-based infrared mapping of H₂O₂ on Mars near opposition. Astronomy and Astrophysics, 2019, 627, A60.	2.1	8
25	Water Vapor Vertical Profiles on Mars in Dust Storms Observed by TGO/NOMAD. Journal of Geophysical Research E: Planets, 2019, 124, 3482-3497.	1.5	88
26	Methane on Mars: New insights into the sensitivity of CH4 with the NOMAD/ExoMars spectrometer through its first in-flight calibration. Icarus, 2019, 321, 671-690.	1.1	32
27	Saltation under Martian gravity and its influence on the global dust distribution. Icarus, 2018, 306, 25-31.	1.1	33
28	The climatology of carbon monoxide and water vapor on Mars as observed by CRISM and modeled by the GEM-Mars general circulation model. Icarus, 2018, 301, 117-131.	1.1	74
29	The GEM-Mars general circulation model for Mars: Description and evaluation. Icarus, 2018, 300, 458-476.	1.1	46
30	NOMAD, an Integrated Suite of Three Spectrometers for the ExoMars Trace Gas Mission: Technical Description, Science Objectives and Expected Performance. Space Science Reviews, 2018, 214, 1.	3.7	95
31	Two test-cases for synergistic detections in the Martian atmosphere: Carbon monoxide and methane. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 189, 86-104.	1.1	7
32	Formation of layers of methane in the atmosphere of Mars after surface release. Geophysical Research Letters, 2016, 43, 1868-1875.	1.5	20
33	Optical and radiometric models of the NOMAD instrument part II: the infrared channels - SO and LNO. Optics Express, 2016, 24, 3790.	1.7	25
34	Expected performances of the NOMAD/ExoMars instrument. Planetary and Space Science, 2016, 124, 94-104.	0.9	31
35	Optical and radiometric models of the NOMAD instrument part I: the UVIS channel. Optics Express, 2015, 23, 30028.	1.7	26
36	A solar escalator on Mars: Selfâ€lifting of dust layers by radiative heating. Geophysical Research Letters, 2015, 42, 7319-7326.	1.5	38

#	Article	IF	Citations
37	Science objectives and performances of NOMAD, a spectrometer suite for the ExoMars TGO mission. Planetary and Space Science, 2015, 119, 233-249.	0.9	77
38	Analysis of reactive bromine production and ozone depletion in the Arctic boundary layer using 3-D simulations with GEM-AQ: inference from synoptic-scale patterns. Atmospheric Chemistry and Physics, 2011, 11, 3949-3979.	1.9	75
39	Studying methane and other trace species in the Mars atmosphere using a SOIR instrument. Planetary and Space Science, 2011, 59, 292-298.	0.9	19
40	Multiscale Atmospheric Chemistry Modelling with GEMAQ. , 2010, , 55-60.		0
41	Hydrogen cyanide in the upper troposphere: GEM-AQ simulation and comparison with ACE-FTS observations. Atmospheric Chemistry and Physics, 2009, 9, 4301-4313.	1.9	32
42	GEM-AQ, an on-line global multiscale chemical weather modelling system: model description and evaluation of gas phase chemistry processes. Atmospheric Chemistry and Physics, 2008, 8, 3255-3281.	1.9	84
43	The Use of Meso-Scale Atmospheric Circulation Types as a Strategy for Modelling Long-Term Trends in Air Pollution. NATO Security Through Science Series C: Environmental Security, 2008, , 145-153.	0.1	0
44	GEM/POPs: a global 3-D dynamic model for semi-volatile persistent organic pollutants â€“ Part 2: Global transports and budgets of PCBs. Atmospheric Chemistry and Physics, 2007, 7, 4015-4025.	1.9	38
45	Connecting surface emissions, convective uplifting, and longâ€range transport of carbon monoxide in the upper troposphere: New observations from the Aura Microwave Limb Sounder. Geophysical Research Letters, 2007, 34, .	1.5	86
46	Developments and Results from a Global Multiscale Air Quality Model (GEM-AQ). , 2007, , 403-410.		2
47	High Resolution Air Quality Simulations with MC2-AQ and GEM-AQ. , 2007, , 714-720.		2
48	First space-based observations of formic acid (HCOOH): Atmospheric Chemistry Experiment austral spring 2004 and 2005 Southern Hemisphere tropical-mid-latitude upper tropospheric measurements. Geophysical Research Letters, 2006, 33, .	1.5	42
49	Evaluation of the GEM-AQ air quality model during the QuÃ©bec smoke event of 2002: Analysis of extensive and intensive optical disparities. Atmospheric Environment, 2006, 40, 3737-3749.	1.9	27
50	Evaluating a Canadian regional air quality model using ground-based observations in north-eastern Canada and United States. Journal of Environmental Monitoring, 2003, 5, 40-46.	2.1	1
51	First application of MC2-AQ to multiscale air quality modelling over Europe. Physics and Chemistry of the Earth, 2002, 27, 1517-1524.	1.2	12
52	Assessment of emissions data for the Toronto region using aircraft-based measurements and an air quality model. Atmospheric Environment, 2001, 35, 6453-6463.	1.9	5