

Nicholas M Schneider

List of Publications by Year in descending order

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128
papers

4,895
citations

93792

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116156

66
g-index

133
all docs

133
docs citations

133
times ranked

2354
citing authors

#	ARTICLE	IF	CITATIONS
1	The Mars Atmosphere and Volatile Evolution (MAVEN) Mission. <i>Space Science Reviews</i> , 2015, 195, 3-48.	3.7	563
2	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.	1.1	216
3	IO ON THE EVE OF THE GALILEO MISSION. <i>Annual Review of Earth and Planetary Sciences</i> , 1996, 24, 125-190.	4.6	172
4	MAVEN observations of the response of Mars to an interplanetary coronal mass ejection. <i>Science</i> , 2015, 350, aad0210.	6.0	166
5	The Imaging Ultraviolet Spectrograph (IUVS) for the MAVEN Mission. <i>Space Science Reviews</i> , 2015, 195, 75-124.	3.7	139
6	Unexpected variability of Martian hydrogen escape. <i>Geophysical Research Letters</i> , 2014, 41, 314-320.	1.5	137
7	The structure and variability of Mars dayside thermosphere from MAVEN NGIMS and IUVS measurements: Seasonal and solar activity trends in scale heights and temperatures. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 1296-1313.	0.8	124
8	The Structure of the Io Torus. <i>Astrophysical Journal</i> , 1995, 450, 450.	1.6	113
9	Elevated atmospheric escape of atomic hydrogen from Mars induced by high-altitude water. <i>Nature Geoscience</i> , 2017, 10, 174-178.	5.4	105
10	Volcanically emitted sodium chloride as a source for Io's neutral clouds and plasma torus. <i>Nature</i> , 2003, 421, 45-47.	13.7	102
11	Characterizing Atmospheric Escape from Mars Today and Through Time, with MAVEN. <i>Space Science Reviews</i> , 2015, 195, 357-422.	3.7	99
12	Discovery of diffuse aurora on Mars. <i>Science</i> , 2015, 350, aad0313.	6.0	98
13	Distribution and Abundance of Sodium in Mercury's Atmosphere, 1985â€“1988. <i>Icarus</i> , 1997, 129, 506-527.	1.1	97
14	The structure and variability of Mars upper atmosphere as seen in MAVEN/IUVS dayglow observations. <i>Geophysical Research Letters</i> , 2015, 42, 9023-9030.	1.5	95
15	Early MAVEN Deep Dip campaign reveals thermosphere and ionosphere variability. <i>Science</i> , 2015, 350, aad0459.	6.0	90
16	MAVEN IUVS observation of the hot oxygen corona at Mars. <i>Geophysical Research Letters</i> , 2015, 42, 9009-9014.	1.5	77
17	Three-dimensional structure in the Mars H corona revealed by IUVS on MAVEN. <i>Geophysical Research Letters</i> , 2015, 42, 9001-9008.	1.5	67
18	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.	0.8	64

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19	SPICAM on Mars Express: A 10 year in-depth survey of the Martian atmosphere. <i>Icarus</i> , 2017, 297, 195-216.	1.1	64
20	Hubble Space Telescope UV spectral observations of Io passing into eclipse. <i>Journal of Geophysical Research</i> , 1994, 99, 8387.	3.3	63
21	Discovery of chlorine in the Io torus. <i>Geophysical Research Letters</i> , 2000, 27, 513-516.	1.5	63
22	Molecular Origin of Io's Fast Sodium. <i>Science</i> , 1991, 253, 1394-1397.	6.0	57
23	MAVEN IUVS observations of the aftermath of the Comet Siding Spring meteor shower on Mars. <i>Geophysical Research Letters</i> , 2015, 42, 4755-4761.	1.5	56
24	MAVEN/IUVS Stellar Occultation Measurements of Mars Atmospheric Structure and Composition. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 1449-1483.	1.5	56
25	Extreme ultraviolet explorer satellite observation of Jupiter's Io plasma torus. <i>Astrophysical Journal</i> , 1994, 426, L51.	1.6	56
26	Detection of a persistent meteoric metal layer in the Martian atmosphere. <i>Nature Geoscience</i> , 2017, 10, 401-404.	5.4	52
27	Discovery of a proton aurora at Mars. <i>Nature Astronomy</i> , 2018, 2, 802-807.	4.2	50
28	The structure of Io's corona. <i>Astrophysical Journal</i> , 1991, 368, 298.	1.6	50
29	Simultaneous observations of atmospheric tides from combined in situ and remote observations at Mars from the MAVEN spacecraft. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 594-607.	1.5	48
30	The Dual Sources of Io's Sodium Clouds. <i>Icarus</i> , 2002, 157, 476-489.	1.1	47
31	Galileo measurements of plasma density in the Io torus. <i>Geophysical Research Letters</i> , 1997, 24, 2119-2122.	1.5	45
32	Global Aurora on Mars During the September 2017 Space Weather Event. <i>Geophysical Research Letters</i> , 2018, 45, 7391-7398.	1.5	44
33	Nonmigrating tides in the Martian atmosphere as observed by MAVEN IUVS. <i>Geophysical Research Letters</i> , 2015, 42, 9057-9063.	1.5	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.	1.5	43
35	Probing the Martian atmosphere with MAVEN/IUVS stellar occultations. <i>Geophysical Research Letters</i> , 2015, 42, 9064-9070.	1.5	42
36	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.	1.5	42

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37	No sodium in the vapour plumes of Enceladus. <i>Nature</i> , 2009, 459, 1102-1104.	13.7	41
38	New observations of molecular nitrogen in the Martian upper atmosphere by IUVS on MAVEN. <i>Geophysical Research Letters</i> , 2015, 42, 9050-9056.	1.5	41
39	Martian water loss to space enhanced by regional dust storms. <i>Nature Astronomy</i> , 2021, 5, 1036-1042.	4.2	40
40	Sodium and Potassium Signatures of Volcanic Satellites Orbiting Close-in Gas Giant Exoplanets. <i>Astrophysical Journal</i> , 2019, 885, 168.	1.6	38
41	Nitric oxide nightglow and Martian mesospheric circulation from MAVEN/IUVS observations and LMD-MGCM predictions. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 5782-5797.	0.8	36
42	Io's Fast Sodium: Implications for Molecular and Atomic Atmospheric Escape. <i>Icarus</i> , 1994, 111, 31-44.	1.1	35
43	A comparison of 3D model predictions of Mars' oxygen corona with early MAVEN IUVS observations. <i>Geophysical Research Letters</i> , 2015, 42, 9015-9022.	1.5	35
44	Short-term variations of Mercury's Na exosphere observed with very high spectral resolution. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	34
45	Comparison of the Martian thermospheric density and temperature from IUVS/MAVEN data and general circulation modeling. <i>Geophysical Research Letters</i> , 2016, 43, 3095-3104.	1.5	34
46	Martian Thermospheric Warming Associated With the Planet Encircling Dust Event of 2018. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085302.	1.5	34
47	High latitude peaks in Mercury's sodium exosphere: Spectral signature using THEMIS solar telescope. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	33
48	Neutral density response to solar flares at Mars. <i>Geophysical Research Letters</i> , 2015, 42, 8986-8992.	1.5	33
49	Io's sodium directional feature: Evidence for ionospheric escape. <i>Journal of Geophysical Research</i> , 1999, 104, 16567-16583.	3.3	30
50	On the nature of the brightness asymmetry in the Io torus. <i>Journal of Geophysical Research</i> , 1997, 102, 19823-19833.	3.3	29
51	Significant Space Weather Impact on the Escape of Hydrogen From Mars. <i>Geophysical Research Letters</i> , 2018, 45, 8844-8852.	1.5	29
52	Eclipse Measurements of Io's Sodium Atmosphere. <i>Science</i> , 1987, 238, 55-58.	6.0	28
53	Meteoritic Metal Chemistry in the Martian Atmosphere. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 695-707.	1.5	28
54	Longitudinal modulation of hot electrons in the Io plasma torus. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	27

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55	On the Origins of Mars' Exospheric Nonthermal Oxygen Component as Observed by MAVEN and Modeled by HELIOSARES. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 2401-2428.	1.5	27
56	Galileo's close-up view of the Io sodium jet. <i>Geophysical Research Letters</i> , 1999, 26, 3333-3336.	1.5	26
57	Inverted ΔV Electron Acceleration Events Concurring With Localized Auroral Observations at Mars by MAVEN. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087414.	1.5	26
58	Sodium remote from Io. <i>Icarus</i> , 1981, 48, 519-535.	1.1	25
59	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.	1.5	24
60	Atmospheric Tides at High Latitudes in the Martian Upper Atmosphere Observed by MAVEN and MRO. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 2943-2953.	0.8	24
61	Proton Aurora on Mars: A Dayside Phenomenon Pervasive in Southern Summer. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 10533-10548.	0.8	24
62	Martian mesospheric cloud observations by IUVS on MAVEN: Thermal tides coupled to the upper atmosphere. <i>Geophysical Research Letters</i> , 2017, 44, 4709-4715.	1.5	23
63	Eclipse Spectroscopy of Io's Atmosphere. <i>Icarus</i> , 2000, 148, 316-319.	1.1	22
64	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.	0.8	22
65	Enhanced water loss from the martian atmosphere during a regional-scale dust storm and implications for long-term water loss. <i>Earth and Planetary Science Letters</i> , 2021, 571, 117109.	1.8	22
66	A comparison of the Voyager 1 ultraviolet spectrometer and plasma science measurements of the Io plasma torus. <i>Journal of Geophysical Research</i> , 1995, 100, 19541.	3.3	21
67	Study of the Martian cold oxygen corona from the $O\text{I } 130.4\text{ nm}$ by IUVS/MAVEN. <i>Geophysical Research Letters</i> , 2015, 42, 9031-9039.	1.5	21
68	Discrete Aurora on Mars: Insights Into Their Distribution and Activity From MAVEN/IUVS Observations. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029428.	0.8	20
69	A Cassegrain echelle spectrograph. <i>Publications of the Astronomical Society of the Pacific</i> , 1991, 103, 1187.	1.0	20
70	Localized Ionization Hypothesis for Transient Ionospheric Layers. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 4870-4880.	0.8	19
71	MAVEN-IUVS Observations of the CO_2 UV Doublet and CO Cameron Bands in the Martian Thermosphere: Aeronomy, Seasonal, and Latitudinal Distribution. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 5816-5827.	0.8	18
72	Vertical Propagation of Wave Perturbations in the Middle Atmosphere on Mars by MAVEN/IUVS. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006481.	1.5	18

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73	New description of Io's cold plasma torus. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	16
74	IUVS echelle-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.	0.8	16
75	Mars's Twilight Cloud Band: A New Cloud Feature Seen During the Mars Year 34 Global Dust Storm. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL084997.	1.5	16
76	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.	1.1	16
77	Thermal structure of Mars's middle and upper atmospheres: Understanding the impacts of dynamics and solar forcing. <i>Icarus</i> , 2023, 393, 114703.	1.1	16
78	The Variability of Atmospheric Deuterium Brightness at Mars: Evidence for Seasonal Dependence. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 10,811.	0.8	15
79	The Impact of Comet Siding Spring's Meteors on the Martian Atmosphere and Ionosphere. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 2613-2627.	1.5	14
80	The O(¹ S) 297.2nm Dayglow Emission: A Tracer of CO ₂ Density Variations in the Martian Lower Thermosphere. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 3119-3132.	1.5	14
81	Io's neutral clouds, plasma torus, magnetospheric interaction. , 2007, , 265-286.		14
82	A Survey of Visible S ⁺ Emission in Io's Plasma Torus During the Hisaki Epoch. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 5610-5624.	0.8	13
83	Detection of Mesospheric CO ₂ Ice Clouds on Mars in Southern Summer. <i>Geophysical Research Letters</i> , 2019, 46, 7962-7971.	1.5	13
84	Seasonal Variability of Deuterium in the Upper Atmosphere of Mars. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 2152-2164.	0.8	13
85	Detection of the Nitric Oxide Dayglow on Mars by MAVEN/IUVS. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 1226-1237.	1.5	13
86	Effect of the 2018 Martian Global Dust Storm on the CO ₂ Density in the Lower Nightside Thermosphere Observed From MAVEN/IUVS Lyman-Alpha Absorption. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL082889.	1.5	13
87	Imaging of Martian Circulation Patterns and Atmospheric Tides Through MAVEN/IUVS Nightglow Observations. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027318.	0.8	13
88	The UV Spectrum of the Lyman-Birge-Hopfield Band System of N ₂ Induced by Cascading from Electron Impact. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027546.	0.8	13
89	Mutual Event Observations of Io's Sodium Corona. <i>Astrophysical Journal</i> , 2001, 563, 1063-1074.	1.6	12
90	Solar control of sodium escape from Io. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 404-415.	1.5	12

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91	Characteristics of Mars UV Dayglow Emissions From Atomic Oxygen at 130.4 and 135.6 nm: MAVEN/IUVS Limb Observations and Modeling. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 4809-4832.	0.8	12
92	UV Study of the Fourth Positive Band System of CO and O λ 135.6 nm From Electron Impact on CO and CO ₂ . <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 2954-2977.	0.8	12
93	Discrete Aurora on Mars: Spectral Properties, Vertical Profiles, and Electron Energies. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029495.	0.8	12
94	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.	1.5	11
95	Airglow remote sensing of the seasonal variation of the Martian upper atmosphere: MAVEN limb observations and model comparison. <i>Icarus</i> , 2020, 341, 113666.	1.1	11
96	Hubble Space Telescope observations of sulfur ions in the Io plasma torus: New constraints on the plasma distribution. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	10
97	A Warm Layer in the Nightside Mesosphere of Mars. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085646.	1.5	9
98	Spatially Asymmetric Increase in Hot Electron Fraction in the Io Plasma Torus During Volcanically Active Period Revealed by Observations by Hisaki/EXCEED From November 2014 to May 2015. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027100.	0.8	9
99	An Extremely Elongated Cloud Over Arsia Mons Volcano on Mars: I. Life Cycle. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006517.	1.5	9
100	Two-dimensional model for the martian exosphere: Applications to hydrogen and deuterium Lyman α observations. <i>Icarus</i> , 2020, 339, 113573.	1.1	8
101	Seasonal and Latitudinal Variations of Dayside N ₂ /CO ₂ Ratio in the Martian Thermosphere Derived From MAVEN IUVS Observations. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006378.	1.5	8
102	Empirically Determined Auroral Electron Events at Mars – MAVEN Observations. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	8
103	Laboratory Study of the Cameron Bands, the First Negative Bands, and Fourth Positive Bands in the Middle Ultraviolet 180–280 nm by Electron Impact Upon CO. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, .	1.5	7
104	Discrete Aurora at Mars: Dependence on Upstream Solar Wind Conditions. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	0.8	7
105	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.	1.5	6
106	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.	1.5	6
107	Discrete Aurora on the Nightside of Mars: Occurrence Location and Probability. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	0.8	6
108	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, .	1.5	5

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109	Effect of the planet shine on the corona: Application to the Martian hot oxygen. Journal of Geophysical Research: Space Physics, 2016, 121, 11,413.	0.8	4
110	Isobar Altitude Variations in the Upper Mesosphere Observed With IUVS&M MAVEN in Response to Martian Dust Storms. Geophysical Research Letters, 2020, 47, e2020GL087468.	1.5	4
111	A Possible Dust Origin for an Unusual Feature in Io&TM's Sodium Neutral Clouds. Astronomical Journal, 2021, 162, 190.	1.9	4
112	Another one derives the dust: Ultraviolet dust aerosol properties retrieved from MAVEN/IUVS data. Icarus, 2022, 387, 115177.	1.1	4
113	Large Volcanic Event on Io Inferred from Jovian Sodium Nebula Brightening. Astrophysical Journal Letters, 2019, 871, L23.	3.0	3
114	Ly± Observations of Comet C/2013 A1 (Siding Spring) Using MAVEN IUVS Echelle. Astronomical Journal, 2020, 160, 10.	1.9	3
115	Observations of Atmospheric Tides in the Middle and Upper Atmosphere of Mars From MAVEN and MRO. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	3
116	MAVEN/IUVS observations of CÃ 156.1Ánm and 165.7Ánm dayglow: Direct detection of carbon and implications on photochemical escape. Icarus, 2022, 371, 114664.	1.1	2
117	The density of the Io plasma torus ribbon. Geophysical Research Letters, 1998, 25, 2757-2760.	1.5	1
118	Galileo's Close-up view of the Io sodium jet - Errata. Geophysical Research Letters, 2000, 27, 1081-1081.	1.5	1
119	A compact high-throughput imaging EUV/FUV spectrometer. , 2003, , .		1
120	Io, the closest Galileo's Medicean Moon: Changes in its Sodium Cloud Caused by Jupiter Eclipse. Proceedings of the International Astronomical Union, 2010, 6, 224-228.	0.0	1
121	First detection of [OI] 630ânm emission in the Enceladus torus. Geophysical Research Letters, 2013, 40, 4177-4181.	1.5	1
122	Ground-Based Remote Sensing of Energetic Neutral Atoms in Jupiter&TM's Magnetosphere. Astrophysics and Space Science Library, 1997, , 411-420.	1.0	1
123	Observations and Modeling of Martian Auroras. Space Science Reviews, 2022, 218, .	3.7	1
124	A high-resolution high-throughput FUV imager for the JMEX mission. , 2003, 4854, 620.		0
125	Photon-by-photon post-processing correction of pointing errors in an orbiting satellite. , 2005, 5899, 359.		0
126	System verification of the JMEX mission residual motion requirements with integrated modeling. , 2005, , .		0

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127	Io's Escaping Atmosphere: Continuing the Legacy of Surprise. Proceedings of the International Astronomical Union, 2010, 6, 80-86.	0.0	0
128	Exploring the Mars atmosphere with ultraviolet spectroscopy. SPIE Newsroom, 0, , .	0.1	0