Nicholas M Schneider

List of Publications by Year
in descending order

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128 papers	4,895 citations	81900 39 h-index	102487 66 g-index
133 all docs	133 docs citations	133 times ranked	2219 citing authors

#	Article	IF	Citations
1	Thermal structure of Marsâ€™ middle and upper atmospheres: Understanding the impacts of dynamics and solar forcing. Icarus, 2023, 393, 114703.	2.5	16
2	MAVEN/IUVS observations of CÂI 156.1Ânm and 165.7Ânm dayglow: Direct detection of carbon and implications on photochemical escape. Icarus, 2022, 371, 114664.	2.5	2
3	Discrete Aurora on the Nightside of Mars: Occurrence Location and Probability. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	6
4	Empirically Determined Auroral Electron Events at Marsâ€”MAVEN Observations. Geophysical Research Letters, 2022, 49, .	4.0	8
5	Discrete Aurora at Mars: Dependence on Upstream Solar Wind Conditions. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	7
6	Reappraising the Production and Transfer of Hydrogen Atoms From the Middle to the Upper Atmosphere of Mars at Times of Elevated Water Vapor. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	5
7	Observations and Modeling of Martian Auroras. Space Science Reviews, 2022, 218, .	8.1	1
8	Observations of Atmospheric Tides in the Middle and Upper Atmosphere of Mars From MAVEN and MRO. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	3
9	Another one derives the dust: Ultraviolet dust aerosol properties retrieved from MAVEN/IUVS data. Icarus, 2022, 387, 115177.	2.5	4
10	Laboratory Study of the Cameron Bands, the First Negative Bands, and Fourth Positive Bands in the Middle Ultraviolet 180â€“280Ânm by Electron Impact Upon CO. Journal of Geophysical Research E: Planets, 2021, 126, .	3.6	7
11	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. Icarus, 2021, 353, 113498.	2.5	16
12	An Extremely Elongated Cloud Over Arsia Mons Volcano on Mars: I. Life Cycle. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006517.	3.6	9
13	Estimate of the D/H Ratio in the Martian Upper Atmosphere from the Low Spectral Resolution Mode of MAVEN/IUVS. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006814.	3.6	6
14	Martian water loss to space enhanced by regional dust storms. Nature Astronomy, 2021, 5, 1036-1042.	10.1	40
15	Discrete Aurora on Mars: Spectral Properties, Vertical Profiles, and Electron Energies. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029495.	2.4	12
16	Discrete Aurora on Mars: Insights Into Their Distribution and Activity From MAVEN/IUVS Observations. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029428.	2.4	20
17	Enhanced water loss from the martian atmosphere during a regional-scale dust storm and implications for long-term water loss. Earth and Planetary Science Letters, 2021, 571, 117109.	4.4	22
18	A Possible Dust Origin for an Unusual Feature in Ioâ€™s Sodium Neutral Clouds. Astronomical Journal, 2021, 162, 190.	4.7	4

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19	Effect of the 2018 Martian Global Dust Storm on the CO₂ Density in the Lower Nightside Thermosphere Observed From MAVEN/IUVS Lymanâ€Alpha Absorption. Geophysical Research Letters, 2020, 47, e2019GL082889.	4.0	13
20	Martian Thermospheric Warming Associated With the Planet Encircling Dust Event of 2018. Geophysical Research Letters, 2020, 47, e2019GL085302.	4.0	34
21	Mars's Twilight Cloud Band: A New Cloud Feature Seen During the Mars Year 34 Global Dust Storm. Geophysical Research Letters, 2020, 47, e2019GL084997.	4.0	16
22	Two-dimensional model for the martian exosphere: Applications to hydrogen and deuterium Lyman Î± observations. Icarus, 2020, 339, 113573.	2.5	8
23	Vertical Propagation of Wave Perturbations in the Middle Atmosphere on Mars by MAVEN/IUVS. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006481.	3.6	18
24	Martian Oxygen and Hydrogen Upper Atmospheres Responding to Solar and Dust Storm Drivers: Hisaki Space Telescope Observations. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006500.	3.6	6
25	Seasonal and Latitudinal Variations of Dayside N₂/CO₂ Ratio in the Martian Thermosphere Derived From MAVEN IUVS Observations. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006378.	3.6	8
26	Imaging of Martian Circulation Patterns and Atmospheric Tides Through MAVEN/IUVS Nightglow Observations. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027318.	2.4	13
27	Isobar Altitude Variations in the Upper Mesosphere Observed With IUVSâ€MAVEN in Response to Martian Dust Storms. Geophysical Research Letters, 2020, 47, e2020GL087468.	4.0	4
28	LyÎ± Observations of Comet C/2013 A1 (Siding Spring) Using MAVEN IUVS Echelle. Astronomical Journal, 2020, 160, 10.	4.7	3
29	A Warm Layer in the Nightside Mesosphere of Mars. Geophysical Research Letters, 2020, 47, e2019GL085646.	4.0	9
30	Airglow remote sensing of the seasonal variation of the Martian upper atmosphere: MAVEN limb observations and model comparison. Icarus, 2020, 341, 113666.	2.5	11
31	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. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027100.	2.4	9
32	Invertedâ€Ⅴ Electron Acceleration Events Concurring With Localized Auroral Observations at Mars by MAVEN. Geophysical Research Letters, 2020, 47, e2020GL087414.	4.0	26
33	The UV Spectrum of the Lymanâ€Birgeâ€Hopfield Band System of N₂ Induced by Cascading from Electron Impact. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027546.	2.4	13
34	Detection of Mesospheric CO₂ Ice Clouds on Mars in Southern Summer. Geophysical Research Letters, 2019, 46, 7962-7971.	4.0	13
35	MAVENâ€IUVS Observations of the CO₂⁺ UV Doublet and CO Cameron Bands in the Martian Thermosphere: Aeronomy, Seasonal, and Latitudinal Distribution. Journal of Geophysical Research: Space Physics, 2019, 124, 5816-5827.	2.4	18
36	Characteristics of Mars UV Dayglow Emissions From Atomic Oxygen at 130.4 and 135.6 nm: MAVEN/IUVS Limb Observations and Modeling. Journal of Geophysical Research: Space Physics, 2019, 124, 4809-4832.	2.4	12

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37	Localized Ionization Hypothesis for Transient Ionospheric Layers. Journal of Geophysical Research: Space Physics, 2019, 124, 4870-4880.	2.4	19
38	Large Volcanic Event on Io Inferred from Jovian Sodium Nebula Brightening. Astrophysical Journal Letters, 2019, 871, L23.	8.3	3
39	Seasonal Variability of Deuterium in the Upper Atmosphere of Mars. Journal of Geophysical Research: Space Physics, 2019, 124, 2152-2164.	2.4	13
40	Detection of the Nitric Oxide Dayglow on Mars by MAVEN/IUVS. Journal of Geophysical Research E: Planets, 2019, 124, 1226-1237.	3.6	13
41	Atmospheric Tides at High Latitudes in the Martian Upper Atmosphere Observed by MAVEN and MRO. Journal of Geophysical Research: Space Physics, 2019, 124, 2943-2953.	2.4	24
42	UV Study of the Fourth Positive Band System of CO and O <scp>i</scp> 135.6Ânm From Electron Impact on CO and CO₂. Journal of Geophysical Research: Space Physics, 2019, 124, 2954-2977.	2.4	12
43	Sodium and Potassium Signatures of Volcanic Satellites Orbiting Close-in Gas Giant Exoplanets. Astrophysical Journal, 2019, 885, 168.	4.5	38
44	Proton Aurora on Mars: A Dayside Phenomenon Pervasive in Southern Summer. Journal of Geophysical Research: Space Physics, 2019, 124, 10533-10548.	2.4	24
45	Meteoric Metal Chemistry in the Martian Atmosphere. Journal of Geophysical Research E: Planets, 2018, 123, 695-707.	3.6	28
46	Mars H Escape Rates Derived From MAVEN/IUVS Lyman Alpha Brightness Measurements and Their Dependence on Model Assumptions. Journal of Geophysical Research E: Planets, 2018, 123, 2192-2210.	3.6	42
47	The Impact of Comet Siding Spring's Meteors on the Martian Atmosphere and Ionosphere. Journal of Geophysical Research E: Planets, 2018, 123, 2613-2627.	3.6	14
48	The O(¹S) 297.2â€nm Dayglow Emission: A Tracer of CO₂ Density Variations in the Martian Lower Thermosphere. Journal of Geophysical Research E: Planets, 2018, 123, 3119-3132.	3.6	14
49	Global Aurora on Mars During the September 2017 Space Weather Event. Geophysical Research Letters, 2018, 45, 7391-7398.	4.0	44
50	Loss of the Martian atmosphere to space: Present-day loss rates determined from MAVEN observations and integrated loss through time. Icarus, 2018, 315, 146-157.	2.5	216
51	Discovery of a proton aurora at Mars. Nature Astronomy, 2018, 2, 802-807.	10.1	50
52	A Survey of Visible <scp>S⁺</scp> Emission in Io's Plasma Torus During the Hisaki Epoch. Journal of Geophysical Research: Space Physics, 2018, 123, 5610-5624.	2.4	13
53	Significant Space Weather Impact on the Escape of Hydrogen From Mars. Geophysical Research Letters, 2018, 45, 8844-8852.	4.0	29
54	Martian Thermospheric Response to an X8.2 Solar Flare on 10 September 2017 as Seen by MAVEN/IUVS. Geophysical Research Letters, 2018, 45, 7312-7319.	4.0	24

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55	MAVEN/IUVS Stellar Occultation Measurements of Mars Atmospheric Structure and Composition. Journal of Geophysical Research E: Planets, 2018, 123, 1449-1483.	3.6	56
56	Elevated atmospheric escape of atomic hydrogen from Mars induced by high-altitude water. Nature Geoscience, 2017, 10, 174-178.	12.9	105
57	Variability of D and H in the Martian upper atmosphere observed with the MAVEN IUVS echelle channel. Journal of Geophysical Research: Space Physics, 2017, 122, 2336-2344.	2.4	64
58	Martian mesospheric cloud observations by IUVS on MAVEN: Thermal tides coupled to the upper atmosphere. Geophysical Research Letters, 2017, 44, 4709-4715.	4.0	23
59	Detection of a persistent meteoric metal layer in the Martian atmosphere. Nature Geoscience, 2017, 10, 401-404.	12.9	52
60	Nitric oxide nightglow and Martian mesospheric circulation from MAVEN/IUVS observations and LMDâ€MGCM predictions. Journal of Geophysical Research: Space Physics, 2017, 122, 5782-5797.	2.4	36
61	The structure and variability of Mars dayside thermosphere from MAVEN NGIMS and IUVS measurements: Seasonal and solar activity trends in scale heights and temperatures. Journal of Geophysical Research: Space Physics, 2017, 122, 1296-1313.	2.4	124
62	SPICAM on Mars Express: A 10 year in-depth survey of the Martian atmosphere. Icarus, 2017, 297, 195-216.	2.5	64
63	IUVS echelleâ€mode observations of interplanetary hydrogen: Standard for calibration and reference for cavity variations between Earth and Mars during MAVEN cruise. Journal of Geophysical Research: Space Physics, 2017, 122, 2089-2105.	2.4	16
64	On the Origins of Mars' Exospheric Nonthermal Oxygen Component as Observed by MAVEN and Modeled by HELIOSARES. Journal of Geophysical Research E: Planets, 2017, 122, 2401-2428.	3.6	27
65	Seasonal Changes in Hydrogen Escape From Mars Through Analysis of HST Observations of the Martian Exosphere Near Perihelion. Journal of Geophysical Research: Space Physics, 2017, 122, 11,756.	2.4	22
66	The Variability of Atmospheric Deuterium Brightness at Mars: Evidence for Seasonal Dependence. Journal of Geophysical Research: Space Physics, 2017, 122, 10,811.	2.4	15
67	Simultaneous observations of atmospheric tides from combined in situ and remote observations at Mars from the MAVEN spacecraft. Journal of Geophysical Research E: Planets, 2016, 121, 594-607.	3.6	48
68	Effect of the planet shine on the corona: Application to the Martian hot oxygen. Journal of Geophysical Research: Space Physics, 2016, 121, 11,413.	2.4	4
69	Comparison of the Martian thermospheric density and temperature from IUVS/MAVEN data and general circulation modeling. Geophysical Research Letters, 2016, 43, 3095-3104.	4.0	34
70	Characterizing Atmospheric Escape from Mars Today and Through Time, with MAVEN. Space Science Reviews, 2015, 195, 357-422.	8.1	99
71	Ultraviolet observations of the hydrogen coma of comet C/2013 A1 (Siding Spring) by MAVEN/IUVS. Geophysical Research Letters, 2015, 42, 8803-8809.	4.0	11
72	MAVEN IUVS observations of the aftermath of the Comet Siding Spring meteor shower on Mars. Geophysical Research Letters, 2015, 42, 4755-4761.	4.0	56

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73	Nonmigrating tides in the Martian atmosphere as observed by MAVEN IUVS. Geophysical Research Letters, 2015, 42, 9057-9063.	4.0	43
74	Retrieval of CO₂ and N₂ in the Martian thermosphere using dayglow observations by IUVS on MAVEN. Geophysical Research Letters, 2015, 42, 9040-9049.	4.0	43
75	Study of the Martian cold oxygen corona from the Oâ€‰I 130.4â€‰nm by IUVS/MAVEN. Geophysical Research Letters, 2015, 42, 9031-9039.	4.0	21
76	The structure and variability of Mars upper atmosphere as seen in MAVEN/IUVS dayglow observations. Geophysical Research Letters, 2015, 42, 9023-9030.	4.0	95
77	Threeâ€dimensional structure in the Mars H corona revealed by IUVS on MAVEN. Geophysical Research Letters, 2015, 42, 9001-9008.	4.0	67
78	MAVEN IUVS observation of the hot oxygen corona at Mars. Geophysical Research Letters, 2015, 42, 9009-9014.	4.0	77
79	New observations of molecular nitrogen in the Martian upper atmosphere by IUVS on MAVEN. Geophysical Research Letters, 2015, 42, 9050-9056.	4.0	41
80	A comparison of 3â€Ð model predictions of Mars' oxygen corona with early MAVEN IUVS observations. Geophysical Research Letters, 2015, 42, 9015-9022.	4.0	35
81	Probing the Martian atmosphere with MAVEN/IUVS stellar occultations. Geophysical Research Letters, 2015, 42, 9064-9070.	4.0	42
82	Neutral density response to solar flares at Mars. Geophysical Research Letters, 2015, 42, 8986-8992.	4.0	33
83	The Imaging Ultraviolet Spectrograph (IUVS) for the MAVEN Mission. Space Science Reviews, 2015, 195, 75-124.	8.1	139
84	The Mars Atmosphere and Volatile Evolution (MAVEN) Mission. Space Science Reviews, 2015, 195, 3-48.	8.1	563
85	MAVEN observations of the response of Mars to an interplanetary coronal mass ejection. Science, 2015, 350, aad0210.	12.6	166
86	Discovery of diffuse aurora on Mars. Science, 2015, 350, aad0313.	12.6	98
87	Early MAVEN Deep Dip campaign reveals thermosphere and ionosphere variability. Science, 2015, 350, aad0459.	12.6	90
88	Unexpected variability of Martian hydrogen escape. Geophysical Research Letters, 2014, 41, 314-320.	4.0	137
89	Solar control of sodium escape from Io. Journal of Geophysical Research E: Planets, 2014, 119, 404-415.	3.6	12
90	First detection of [OI] 630â€‰nm emission in the Enceladus torus. Geophysical Research Letters, 2013, 40, 4177-4181.	4.0	1

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91	Longitudinal modulation of hot electrons in the Io plasma torus. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	27
92	Io's Escaping Atmosphere: Continuing the Legacy of Surprise. Proceedings of the International Astronomical Union, 2010, 6, 80-86.	0.0	0
93	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
94	No sodium in the vapour plumes of Enceladus. Nature, 2009, 459, 1102-1104.	27.8	41
95	Shortâ€term variations of Mercury's Na exosphere observed with very high spectral resolution. Geophysical Research Letters, 2009, 36, .	4.0	34
96	New description of Io's cold plasma torus. Journal of Geophysical Research, 2008, 113, .	3.3	16
97	High latitude peaks in Mercury's sodium exosphere: Spectral signature using THEMIS solar telescope. Geophysical Research Letters, 2008, 35, .	4.0	33
98	Ioâ€™s neutral clouds, plasma torus, magnetospheric interaction. , 2007, , 265-286.		14
99	Photon-by-photon post-processing correction of pointing errors in an orbiting satellite. , 2005, 5899, 359.		0
100	System verification of the JMEX mission residual motion requirements with integrated modeling. , 2005, , .		0
101	Volcanically emitted sodium chloride as a source for Io's neutral clouds and plasma torus. Nature, 2003, 421, 45-47.	27.8	102
102	Hubble Space Telescope observations of sulfur ions in the Io plasma torus: New constraints on the plasma distribution. Journal of Geophysical Research, 2003, 108, .	3.3	10
103	A compact high-throughput imaging EUV/FUV spectrometer. , 2003, , .		1
104	A high-resolution high-throughput FUV imager for the JMEX mission. , 2003, 4854, 620.		0
105	The Dual Sources of Io's Sodium Clouds. Icarus, 2002, 157, 476-489.	2.5	47
106	Mutual Event Observations of Ioâ€™s Sodium Corona. Astrophysical Journal, 2001, 563, 1063-1074.	4.5	12
107	Eclipse Spectroscopy of Io's Atmosphere. Icarus, 2000, 148, 316-319.	2.5	22
108	Discovery of chlorine in the Io torus. Geophysical Research Letters, 2000, 27, 513-516.	4.0	63

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109	Galileo's Close-up view of the Io sodium jet - Errata. Geophysical Research Letters, 2000, 27, 1081-1081.	4.0	1
110	Galileo's close-up view of the Io sodium jet. Geophysical Research Letters, 1999, 26, 3333-3336.	4.0	26
111	Io's sodium directional feature: Evidence for ionospheric escape. Journal of Geophysical Research, 1999, 104, 16567-16583.	3.3	30
112	The density of the Io plasma torus ribbon. Geophysical Research Letters, 1998, 25, 2757-2760.	4.0	1
113	On the nature of the Î»IIIbrightness asymmetry in the Io torus. Journal of Geophysical Research, 1997, 102, 19823-19833.	3.3	29
114	Galileo measurements of plasma density in the Io torus. Geophysical Research Letters, 1997, 24, 2119-2122.	4.0	45
115	Distribution and Abundance of Sodium in Mercury's Atmosphere, 1985â€“1988. Icarus, 1997, 129, 506-527.	2.5	97
116	Ground-Based Remote Sensing of Energetic Neutral Atoms in Jupiterâ€™s Magnetosphere. Astrophysics and Space Science Library, 1997, , 411-420.	2.7	1
117	IO ON THE EVE OF THE GALILEO MISSION. Annual Review of Earth and Planetary Sciences, 1996, 24, 125-190.	11.0	172
118	A comparison of the Voyager 1 ultraviolet spectrometer and plasma science measurements of the Io plasma torus. Journal of Geophysical Research, 1995, 100, 19541.	3.3	21
119	The Structure of the Io Torus. Astrophysical Journal, 1995, 450, 450.	4.5	113
120	Io's Fast Sodium: Implications for Molecular and Atomic Atmospheric Escape. Icarus, 1994, 111, 31-44.	2.5	35
121	Hubble Space Telescope UV spectral observations of Io passing into eclipse. Journal of Geophysical Research, 1994, 99, 8387.	3.3	63
122	Extreme ultraviolet explorer satellite observation of Jupiter's Io plasma torus. Astrophysical Journal, 1994, 426, L51.	4.5	56
123	Molecular Origin of Io's Fast Sodium. Science, 1991, 253, 1394-1397.	12.6	57
124	A Cassegrain echelle spectrograph. Publications of the Astronomical Society of the Pacific, 1991, 103, 1187.	3.1	20
125	The structure of Io's corona. Astrophysical Journal, 1991, 368, 298.	4.5	50
126	Eclipse Measurements of Io's Sodium Atmosphere. Science, 1987, 238, 55-58.	12.6	28

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127	Sodium remote from Io. Icarus, 1981, 48, 519-535.	2.5	25
128	Exploring the Mars atmosphere with ultraviolet spectroscopy. SPIE Newsroom, 0, , .	0.1	0