Henrik Melin

List of Publications by Year
in descending order

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76	1,847	218677	315739
papers	citations	26 h-index	38 g-index

84	84	84	1109
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ice giant system exploration within ESAâ€™s Voyage 2050. Experimental Astronomy, 2022, 54, 1015-1025.	3.7	4
2	Saturn's Weatherâ€Driven Aurorae Modulate Oscillations in the Magnetic Field and Radio Emissions. Geophysical Research Letters, 2022, 49, .	4.0	9
3	On the clouds and ammonia in Jupiterâ€™s upper troposphere from Juno JIRAM reflectivity observations. Monthly Notices of the Royal Astronomical Society, 2021, 503, 4892-4907.	4.4	5
4	Global upper-atmospheric heating on Jupiter by the polar aurorae. Nature, 2021, 596, 54-57.	27.8	16
5	Meridional Variations of C₂H₂ in Jupiter's Stratosphere From Juno UVS Observations. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006928.	3.6	5
6	Jupiter's Equatorial Plumes and Hot Spots: Spectral Mapping from Gemini/TEXES and Juno/MWR. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006399.	3.6	13
7	Towards a solution to the energy crisis. Nature Astronomy, 2020, 4, 837-838.	10.1	16
8	Saturn's Nightside Dynamics During Cassini's F Ring and Proximal Orbits: Response to Solar Wind and Planetary Period Oscillation Modulations. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA027907.	2.4	14
9	The upper atmospheres of Uranus and Neptune. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190478.	3.4	6
10	Atmospheric implications of the lack of H 3 + detection at Neptune. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20200100.	3.4	4
11	Characterizing Temperature and Aerosol Variability During Jupiter's 2006â€“2007 Equatorial Zone Disturbance. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006413.	3.6	4
12	Jupiter in the Ultraviolet: Acetylene and Ethane Abundances in the Stratosphere of Jupiter from Cassini Observations between 0.15 and 0.19 Î¼m. Astronomical Journal, 2020, 159, 291.	4.7	11
13	Ice Giant Systems: The scientific potential of orbital missions to Uranus and Neptune. Planetary and Space Science, 2020, 191, 105030.	1.7	39
14	Exploring Key Characteristics in Saturn's Infrared Auroral Emissions Using VLTâ€CRIRES: Intensities, Ion Lineâ€ofâ€Sight Velocities, and Rotational Temperatures. Geophysical Research Letters, 2019, 46, 7137-7146.	4.0	7
15	Local-time averaged maps of H ₃ ⁺ emission, temperature and ion winds. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180405.	3.4	11
16	Modelling H ₃ ⁺ in planetary atmospheres: effects of vertical gradients on observed quantities. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20190067.	3.4	10
17	The H ₃ ⁺ ionosphere of Uranus: decades-long cooling and local-time morphology. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180408.	3.4	15
18	Jupiterâ€™s Atmospheric Variability from Long-term Ground-based Observations at 5 Î¼m. Astronomical Journal, 2019, 158, 130.	4.7	17

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19	Observations of the chemical and thermal response of â€˜ring rainâ€™ on Saturnâ€™s ionosphere. Icarus, 2019, 322, 251-260.	2.5	22
20	Assessing the long-term variability of acetylene and ethane in the stratosphere of Jupiter. Icarus, 2018, 305, 301-313.	2.5	20
21	Characterization of Mesoscale Waves in the Jupiter NEB by Jupiter InfraRed Auroral Mapper on board Juno. Astronomical Journal, 2018, 156, 246.	4.7	5
22	Infrared Characterization of Jupiter's Equatorial Disturbance Cycle. Geophysical Research Letters, 2018, 45, 10,987.	4.0	19
23	Jupiterâ€™s Mesoscale Waves Observed at 5 Î¼m by Ground-based Observations and Juno JIRAM. Astronomical Journal, 2018, 156, 67.	4.7	17
24	The quest for H$_3^+$ at Neptune: deep burn observations with NASA IRTF iSHELL. Monthly Notices of the Royal Astronomical Society, 2018, 474, 3714-3719.	4.4	14
25	Identification of Jupiterâ€™s magnetic equator through H3+ ionospheric emission. Nature Astronomy, 2018, 2, 773-777.	10.1	17
26	Mapping H₃⁺ Temperatures in Jupiter's Northern Auroral Ionosphere Using VLTâ€CRIRES. Journal of Geophysical Research: Space Physics, 2018, 123, 5990-6008.	2.4	21
27	The Great Cold Spot in Jupiter's upper atmosphere. Geophysical Research Letters, 2017, 44, 3000-3008.	4.0	7
28	Jupiter's North Equatorial Belt expansion and thermal wave activity ahead of Juno's arrival. Geophysical Research Letters, 2017, 44, 7140-7148.	4.0	21
29	Variability of Jupiter's IR H₃⁺ aurorae during Juno approach. Geophysical Research Letters, 2017, 44, 4513-4522.	4.0	14
30	Independent evolution of stratospheric temperatures in Jupiter's northern and southern auroral regions from 2014 to 2016. Geophysical Research Letters, 2017, 44, 5345-5354.	4.0	12
31	The aurorae of Uranus past equinox. Journal of Geophysical Research: Space Physics, 2017, 122, 3997-4008.	2.4	24
32	Jupiter's polar ionospheric flows: High resolution mapping of spectral intensity and lineâ€ofâ€sight velocity of H₃⁺ ions. Journal of Geophysical Research: Space Physics, 2017, 122, 7599-7618.	2.4	23
33	An isolated, bright cusp aurora at Saturn. Journal of Geophysical Research: Space Physics, 2017, 122, 6121-6138.	2.4	9
34	Redetection of the Ionospheric Signature of Saturn's â€œRing Rainâ€• Geophysical Research Letters, 2017, 44, 11,762.	4.0	16
35	Detection of H₃⁺auroral emission in Jupiterâ€™s 5-micron window. Astronomy and Astrophysics, 2016, 589, A67.	5.1	9
36	Jupiterâ€™s hydrogen bulge: A Cassini perspective. Icarus, 2016, 278, 238-247.	2.5	9

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37	Measurements of the rotation rate of the jovian mid-to-low latitude ionosphere. Icarus, 2016, 280, 249-254.	2.5	6
38	Heating of Jupiterâ€™s upper atmosphere above the Great Red Spot. Nature, 2016, 536, 190-192.	27.8	32
39	Weakening of Jupiter's main auroral emission during January 2014. Geophysical Research Letters, 2016, 43, 988-997.	4.0	50
40	Ground-based observations of Saturnâ€™s auroral ionosphere over three days: Trends in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.gif" overflow="scroll"><mml:mrow><mml:msubsup><mml:mrow><mml:mtext>H</mml:mtext></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow><mml:mrow><mml:mo>+</mml:mo></mml:mrow></mml:msubsup></mml:mrow></mml:math> temperature, density and emission with Saturn local time and planetary period oscillation. Icarus, 2016, 263, 44-55.	2.5	13
41	The 2013 Saturn auroral campaign. Icarus, 2016, 263, 1.	2.5	1
42	Saturnâ€™s auroral morphology and field-aligned currents during a solar wind compression. Icarus, 2016, 263, 83-93.	2.5	26
43	Saturn kilometric radiation intensities during the Saturn auroral campaign of 2013. Icarus, 2016, 263, 2-9.	2.5	13
44	Stability within Jupiterâ€™s polar auroral â€˜Swirl regionâ€™ over moderate timescales. Icarus, 2016, 268, 145-155.	2.5	17
45	Cassini VIMS observations of H 3 + emission on the nightside of Jupiter. Journal of Geophysical Research: Space Physics, 2015, 120, 6948-6973.	2.4	12
46	Auroral Processes at the Giant Planets: Energy Deposition, Emission Mechanisms, Morphology and Spectra. Space Science Reviews, 2015, 187, 99-179.	8.1	86
47	On the anticorrelation between H$_3^+$ temperature and density in giant planet ionospheres. Monthly Notices of the Royal Astronomical Society, 2014, 438, 1611-1617.	4.4	17
48	Dynamic auroral storms on Saturn as observed by the Hubble Space Telescope. Geophysical Research Letters, 2014, 41, 3323-3330.	4.0	43
49	Conjugate observations of Saturnâ€™s northern and southern <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si22.gif" overflow="scroll"><mml:mrow><mml:msubsup><mml:mrow><mml:mi mathvariant="normal">H</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow><mml:mrow><mml:mo>+</mml:mo></mml:mrow></mml:msubsup></mml:mrow></mml:math> aurorae. Icarus, 2014, 229, 214-229.	2.5	29
50	Multispectral simultaneous diagnosis of Saturn's aurorae throughout a planetary rotation. Journal of Geophysical Research: Space Physics, 2013, 118, 4817-4843.	2.4	74
51	Post-equinoctial observations of the ionosphere of Uranus. Icarus, 2013, 223, 741-748.	2.5	23
52	The domination of Saturnâ€™s low-latitude ionosphere by ring â€˜rainâ€™. Nature, 2013, 496, 193-195.	27.8	70
53	Cooling by H₃⁺ Emission. Journal of Physical Chemistry A, 2013, 117, 9770-9777.	2.5	33
54	Temperature changes and energy inputs in giant planet atmospheres: what we are learning from H ₃ ⁺. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 5213-5224.	3.4	29

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55	Peak emission altitude of Saturn's H₃⁺ aurora. Geophysical Research Letters, 2012, 39, .	4.0	25
56	Rotational modulation and local time dependence of Saturn's infrared H₃⁺ auroral intensity. Journal of Geophysical Research, 2012, 117, .	3.3	33
57	Cassini observations of ion and electron beams at Saturn and their relationship to infrared auroral arcs. Journal of Geophysical Research, 2012, 117, .	3.3	47
58	Earthâ€based detection of Uranus' aurorae. Geophysical Research Letters, 2012, 39, .	4.0	51
59	Saturn's auroral/polar H₃⁺ infrared emission: The effect of solar wind compression. Journal of Geophysical Research, 2012, 117, .	3.3	13
60	Uranus Pathfinder: exploring the origins and evolution of Ice Giant planets. Experimental Astronomy, 2012, 33, 753-791.	3.7	44
61	Location of Saturn's northern infrared aurora determined from Cassini VIMS images. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	28
62	Simultaneous Cassini VIMS and UVIS observations of Saturn's southern aurora: Comparing emissions from H, H₂ and H₃⁺ at a high spatial resolution. Geophysical Research Letters, 2011, 38, .	4.0	37
63	New limits on H+3 abundance on Neptune using Keck NIRSPEC. Monthly Notices of the Royal Astronomical Society, 2011, 410, 641-644.	4.4	14
64	Cassini VIMS observations of latitudinal and hemispheric variations in Saturnâ€™s infrared auroral intensity. Icarus, 2011, 216, 367-375.	2.5	23
65	SEASONAL VARIABILITY IN THE IONOSPHERE OF URANUS. Astrophysical Journal, 2011, 729, 134.	4.5	22
66	LOCATION AND MAGNETOSPHERIC MAPPING OF SATURN'S MID-LATITUDE INFRARED AURORAL OVAL. Astrophysical Journal Letters, 2010, 722, L85-L89.	8.3	21
67	H3+ cooling in planetary atmospheres. Faraday Discussions, 2010, 147, 283.	3.2	61
68	The distribution of atomic hydrogen and oxygen in the magnetosphere of Saturn. Planetary and Space Science, 2009, 57, 1743-1753.	1.7	64
69	Jovian-like aurorae on Saturn. Nature, 2008, 453, 1083-1085.	27.8	43
70	Saturn's auroral/polar H+3 infrared emission. Icarus, 2007, 189, 1-13.	2.5	40
71	Variability in the H+3 emission of Saturn: Consequences for ionisation rates and temperature. Icarus, 2007, 186, 234-241.	2.5	53
72	Saturn's auroral/polar H+3 infrared emission. Icarus, 2007, 191, 678-690.	2.5	29

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73	Estimated energy balance in the jovian upper atmosphere during an auroral heating event. Icarus, 2006, 181, 256-265.	2.5	48
74	: the driver of giant planet atmospheres. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2006, 364, 3121-3137.	3.4	47
75	Non-LTE effects on H3+ emission in the jovian upper atmosphere. Icarus, 2005, 178, 97-103.	2.5	38
76	Clues on Ionospheric Electrodynamics From Ir Aurora at Jupiter and Saturn. Geophysical Monograph Series, 0, , 215-224.	0.1	5