Patrick Gj Irwin

List of Publications by Year in descending order

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221 papers	9,473 citations	30047 54 h-index	54882 84 g-index
245 all docs	245 docs citations	245 times ranked	3735 citing authors

#	Article	IF	Citations
1	The NEMESIS planetary atmosphere radiative transfer and retrieval tool. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 1136-1150.	1.1	415
2	The composition of Titan's stratosphere from Cassini/CIRS mid-infrared spectra. Icarus, 2007, 189, 35-62.	1.1	367
3	Titan's Atmospheric Temperatures, Winds, and Composition. Science, 2005, 308, 975-978.	6.0	318
4	Temperatures, Winds, and Composition in the Saturnian System. Science, 2005, 307, 1247-1251.	6.0	184
5	Structure and dynamics of the Martian lower and middle atmosphere as observed by the Mars Climate Sounder: Seasonal variations in zonal mean temperature, dust, and water ice aerosols. Journal of Geophysical Research, 2010, 115, .	3.3	183
6	A CONSISTENT RETRIEVAL ANALYSIS OF 10 HOT JUPITERS OBSERVED IN TRANSMISSION. Astrophysical Journal, 2017, 834, 50.	1.6	180
7	Vertical abundance profiles of hydrocarbons in Titan's atmosphere at 15Â° S and 80Â° N retrieved from Cassini/CIRS spectra. Icarus, 2007, 188, 120-138.	1.1	176
8	Scientific goals for the observation of Venus by VIRTIS on ESA/Venus express mission. Planetary and Space Science, 2007, 55, 1653-1672.	0.9	155
9	Phosphine on Jupiter and Saturn from Cassini/CIRS. Icarus, 2009, 202, 543-564.	1.1	153
10	Optimal estimation retrievals of the atmospheric structure and composition of HDâ€ƒ189733b from secondary eclipse spectroscopy. Monthly Notices of the Royal Astronomical Society, 2012, 420, 170-182.	1.6	144
11	Methane and its isotopologues on Saturn from Cassini/CIRS observations. Icarus, 2009, 199, 351-367.	1.1	143
12	Oxygen compounds in Titan's stratosphere as observed by Cassini CIRS. Icarus, 2007, 186, 354-363.	1.1	127
13	Vertical profiles of HCN, HC3N, and C2H2 in Titan's atmosphere derived from Cassini/CIRS data. Icarus, 2007, 186, 364-384.	1.1	121
14	A Gemini ground-based transmission spectrum of WASP-29b: a featureless spectrum from 515 to 720Ânm. Monthly Notices of the Royal Astronomical Society, 2013, 428, 3680-3692.	1.6	119
15	Stormy water on Mars: The distribution and saturation of atmospheric water during the dusty season. Science, 2020, 367, 297-300.	6.0	117
16	South-polar features on Venus similar to those near the north pole. Nature, 2007, 450, 637-640.	13.7	110
17	The optical transmission spectrum of the hot Jupiter HAT-P-32b: clouds explain the absence of broad spectral features?. Monthly Notices of the Royal Astronomical Society, 2013, 436, 2974-2988.	1.6	109
18	Temperature and Composition of Saturn's Polar Hot Spots and Hexagon. Science, 2008, 319, 79-81.	6.0	103

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19	The Transiting Exoplanet Community Early Release Science Program for JWST. Publications of the Astronomical Society of the Pacific, 2018, 130, 114402.	1.0	100
20	Transit spectroscopy with James Webb Space Telescope: systematics, starspots and stitching. Monthly Notices of the Royal Astronomical Society, 2015, 448, 2546-2561.	1.6	99
21	Detectability of Biosignatures in Anoxic Atmospheres with the James Webb Space Telescope: A TRAPPIST-1e Case Study. Astronomical Journal, 2018, 156, 114.	1.9	98
22	Titan's stratospheric C2N2, C3H4, and C4H2 abundances from Cassini/CIRS far-infrared spectra. Icarus, 2009, 202, 620-631.	1.1	96
23	Characteristics of Titan's stratospheric aerosols and condensate clouds from Cassini CIRS far-infrared spectra. Icarus, 2007, 191, 223-235.	1.1	95
24	Models of the global cloud structure on Venus derived from Venus Express observations. Icarus, 2012, 217, 542-560.	1.1	95
25	ATMOSPHERIC RETRIEVAL ANALYSIS OF THE DIRECTLY IMAGED EXOPLANET HR 8799b. Astrophysical Journal, 2013, 778, 97.	1.6	95
26	ISOTOPIC RATIOS IN TITAN's METHANE: MEASUREMENTS AND MODELING. Astrophysical Journal, 2012, 749, 159.	1.6	91
27	Mid-infrared mapping of Jupiterâ€™s temperatures, aerosol opacity and chemical distributions with IRTF/TEXES. Icarus, 2016, 278, 128-161.	1.1	89
28	Saturnâ€™s tropospheric composition and clouds from Cassini/VIMS 4.6â€“5.1Î¼m nightside spectroscopy. Icarus, 2011, 214, 510-533.	1.1	84
29	A single-scattering approximation for infrared radiative transfer in limb geometry in the Martian atmosphere. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1568-1580.	1.1	84
30	DETECTION OF PROPENE IN TITAN'S STRATOSPHERE. Astrophysical Journal Letters, 2013, 776, L14.	3.0	84
31	Characterising Saturn's vertical temperature structure from Cassini/CIRS. Icarus, 2007, 189, 457-478.	1.1	80
32	Active upper-atmosphere chemistry and dynamics from polar circulation reversal on Titan. Nature, 2012, 491, 732-735.	13.7	80
33	Cloud structure and atmospheric composition of Jupiter retrieved from Galileo near-infrared mapping spectrometer real-time spectra. Journal of Geophysical Research, 1998, 103, 23001-23021.	3.3	76
34	Thermal Structure and Dynamics of Saturnâ€™s Northern Springtime Disturbance. Science, 2011, 332, 1413-1417.	6.0	75
35	CLOUDS ON THE HOT JUPITER HD189733b: CONSTRAINTS FROM THE REFLECTION SPECTRUM. Astrophysical Journal, 2014, 786, 154.	1.6	74
36	ETHYL CYANIDE ON TITAN: SPECTROSCOPIC DETECTION AND MAPPING USING ALMA. Astrophysical Journal Letters, 2015, 800, L14.	3.0	73

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37	Intense polar temperature inversion in the middle atmosphere on Mars. Nature Geoscience, 2008, 1, 745-749.	5.4	71
38	Detection of hydrogen sulfide above the clouds in Uranusâ€™s atmosphere. Nature Astronomy, 2018, 2, 420-427.	4.2	71
39	Improved near-infrared methane band models and k-distribution parameters from 2000 to 9500 cmâ^'1 and implications for interpretation of outer planet spectra. Icarus, 2006, 181, 309-319.	1.1	69
40	Saturn's Titan: Surface change, ammonia, and implications for atmospheric and tectonic activity. Icarus, 2009, 199, 429-441.	1.1	69
41	Retrievals of jovian tropospheric phosphine from Cassini/CIRS. Icarus, 2004, 172, 37-49.	1.1	68
42	Global and temporal variations in hydrocarbons and nitriles in Titan's stratosphere for northern winter observed by Cassini/CIRS. Icarus, 2008, 193, 595-611.	1.1	65
43	Seasonal change on Saturn from Cassini/CIRS observations, 2004â€“2009. Icarus, 2010, 208, 337-352.	1.1	63
44	The origin and evolution of Saturnâ€™s 2011â€“2012 stratospheric vortex. Icarus, 2012, 221, 560-586.	1.1	63
45	Spatial and temporal variations in Titan's surface temperatures from Cassini CIRS observations. Planetary and Space Science, 2012, 60, 62-71.	0.9	63
46	Understanding and mitigating biases when studying inhomogeneous emission spectra with JWST. Monthly Notices of the Royal Astronomical Society, 2020, 493, 4342-4354.	1.6	63
47	The 12C/13C isotopic ratio in Titan hydrocarbons from Cassini/CIRS infrared spectra. Icarus, 2008, 195, 778-791.	1.1	62
48	Constraining the atmosphere of GJ 1214b using an optimal estimation technique. Monthly Notices of the Royal Astronomical Society, 2013, 434, 2616-2628.	1.6	61
49	HCN ice in Titanâ€™s high-altitude southern polar cloud. Nature, 2014, 514, 65-67.	13.7	59
50	Titan's winter polar vortex structure revealed by chemical tracers. Journal of Geophysical Research, 2008, 113, .	3.3	58
51	ALMA detection and astrobiological potential of vinyl cyanide on Titan. Science Advances, 2017, 3, e1700022.	4.7	58
52	2.5D retrieval of atmospheric properties from exoplanet phase curves: application to WASP-43b observations. Monthly Notices of the Royal Astronomical Society, 2020, 493, 106-125.	1.6	57
53	Retrievals of atmospheric variables on the gas giants from ground-based mid-infrared imaging. Icarus, 2009, 200, 154-175.	1.1	54
54	Titan's prolific propane: The Cassini CIRS perspective. Planetary and Space Science, 2009, 57, 1573-1585.	0.9	54

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55	ALMA OBSERVATIONS OF HCN AND ITS ISOTOPOLOGUES ON TITAN. Astronomical Journal, 2016, 152, 42.	1.9	54
56	ALMA MEASUREMENTS OF THE HNC AND HC₃N DISTRIBUTIONS IN TITAN'S ATMOSPHERE. Astrophysical Journal Letters, 2014, 795, L30.	3.0	53
57	Methane absorption in the atmosphere of Jupiter from 1800 to 9500 cm and implications for vertical cloud structure. Icarus, 2005, 176, 255-271.	1.1	51
58	Dynamical implications of seasonal and spatial variations in Titan's stratospheric composition. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 697-711.	1.6	50
59	Thermal structure and composition of Jupiterâ€™s Great Red Spot from high-resolution thermal imaging. Icarus, 2010, 208, 306-328.	1.1	50
60	Constraints on Titan's middle atmosphere ammonia abundance from Herschel/SPIRE sub-millimetre spectra. Planetary and Space Science, 2013, 75, 136-147.	0.9	50
61	No evidence of phosphine in the atmosphere of Venus from independent analyses. Nature Astronomy, 2021, 5, 631-635.	4.2	50
62	Scientific rationale for Saturn×³s in situ exploration. Planetary and Space Science, 2014, 104, 29-47.	0.9	49
63	Spatial variability of carbon monoxide in Venus' mesosphere from Venus Express/Visible and Infrared Thermal Imaging Spectrometer measurements. Journal of Geophysical Research, 2008, 113, .	3.3	48
64	Neptune at summer solstice: Zonal mean temperatures from ground-based observations, 2003â€“2007. Icarus, 2014, 231, 146-167.	1.1	48
65	Correlations between cloud thickness and subâ€cloud water abundance on Venus. Geophysical Research Letters, 2010, 37, .	1.5	47
66	ISOTOPIC RATIOS OF CARBON AND OXYGEN IN TITANâ€™S CO USING ALMA. Astrophysical Journal Letters, 2016, 821, L8.	3.0	46
67	Probable detection of hydrogen sulphide (H2S) in Neptuneâ€™s atmosphere. Icarus, 2019, 321, 550-563.	1.1	46
68	The origin of nitrogen on Jupiter and Saturn from the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si70.gif" overflow="scroll"><mml:mrow><mml:msup><mml:mrow /><mml:mrow><mml:mn>15</mml:mn></mml:mrow></mml:msup></mml:mrow></mml:math>N/<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si71.gif" overflow="scroll"><mml:mrow><mml:msup><mml:mrow /><mml:mrow><mml:mn>14</mml:mn></mml:	1.1	44
69	Isotopic Ratios in Titan's Atmosphere from Cassini CIRS Limb Sounding: HC ₃ N in the North. Astrophysical Journal, 2008, 681, L109-L111.	1.6	43
70	The application of new methane line absorption data to Gemini-N/NIFS and KPNO/FTS observations of Uranusâ€™ near-infrared spectrum. Icarus, 2012, 220, 369-382.	1.1	43
71	Isotopic Ratios in Titan's Atmosphere from Cassini CIRS Limb Sounding: CO ₂ at Low and Midlatitudes. Astrophysical Journal, 2008, 681, L101-L103.	1.6	42
72	Abundances of Jupiter's trace hydrocarbons from Voyager and Cassini. Planetary and Space Science, 2010, 58, 1667-1680.	0.9	42

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73	The formation and evolution of Titanâ€™s winter polar vortex. Nature Communications, 2017, 8, 1586.	5.8	41
74	Venus Upper Clouds and the UV Absorber From MESSENGER/MASCS Observations. Journal of Geophysical Research E: Planets, 2018, 123, 145-162.	1.5	41
75	Upper limits for undetected trace species in the stratosphere of Titan. Faraday Discussions, 2010, 147, 65.	1.6	40
76	Moist convection and the 2010â€“2011 revival of Jupiterâ€™s South Equatorial Belt. Icarus, 2017, 286, 94-117.	1.1	40
77	Water vapor in Titanâ€™s stratosphere from Cassini CIRS far-infrared spectra. Icarus, 2012, 220, 855-862.	1.1	39
78	Climatology and first-order composition estimates of mesospheric clouds from Mars Climate Sounder limb spectra. Icarus, 2013, 222, 342-356.	1.1	39
79	On the potential of the EChO mission to characterize gas giant atmospheres. Monthly Notices of the Royal Astronomical Society, 2013, 430, 1188-1207.	1.6	39
80	Evidence for anomalous cloud particles at the poles of Venus. Journal of Geophysical Research, 2008, 113, .	3.3	38
81	Photometric changes on Saturn's Titan: Evidence for active cryovolcanism. Geophysical Research Letters, 2009, 36, .	1.5	38
82	Seasonal evolution of Saturnâ€™s polar temperatures and composition. Icarus, 2015, 250, 131-153.	1.1	38
83	A correlated-k model of radiative transfer in the near-infrared windows of Venus. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 1118-1135.	1.1	37
84	Tropospheric carbon monoxide concentrations and variability on Venus from Venus Express/VIRTISâ€M observations. Journal of Geophysical Research, 2008, 113, .	3.3	37
85	Disruption of Saturnâ€™s quasi-periodic equatorial oscillation by the great northern storm. Nature Astronomy, 2017, 1, 765-770.	4.2	37
86	Seasonal Evolution of Titan's Stratosphere During the Cassini Mission. Geophysical Research Letters, 2019, 46, 3079-3089.	1.5	37
87	Scattering particles in nightside limb observations of Venusâ€™ upper atmosphere by Venus Express VIRTIS. Icarus, 2011, 211, 51-57.	1.1	36
88	Seasonal variations of temperature, acetylene and ethane in Saturnâ€™s atmosphere from 2005 to 2010, as observed by Cassini-CIRS. Icarus, 2013, 225, 257-271.	1.1	36
89	A hexagon in Saturnâ€™s northern stratosphere surrounding the emerging summertime polar vortex. Nature Communications, 2018, 9, 3564.	5.8	36
90	Abundance measurements of Titanâ€™s stratospheric HCN, HC3N, C3H4, and CH3CN from ALMA observations. Icarus, 2019, 319, 417-432.	1.1	36

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91	Detection of Cyclopropenylidene on Titan with ALMA. Astronomical Journal, 2020, 160, 205.	1.9	36
92	Optical constants of ammonium hydrosulfide ice and ammonia ice. Journal of the Optical Society of America B: Optical Physics, 2007, 24, 126.	0.9	35
93	The meridional phosphine distribution in Saturn's upper troposphere from Cassini/CIRS observations. Icarus, 2007, 188, 72-88.	1.1	35
94	SEASONAL CHANGES IN TITAN'S POLAR TRACE GAS ABUNDANCE OBSERVED BY CASSINI. Astrophysical Journal Letters, 2010, 724, L84-L89.	3.0	34
95	Jovian temperature and cloud variability during the 2009â€“2010 fade of the South Equatorial Belt. Icarus, 2011, 213, 564-580.	1.1	34
96	Saturn's emitted power. Journal of Geophysical Research, 2010, 115, .	3.3	33
97	Retrieval of air temperature profiles in the Venusian mesosphere from VIRTISâ€M data: Description and validation of algorithms. Journal of Geophysical Research, 2008, 113, .	3.3	32
98	CONSTRAINING THE ATMOSPHERIC COMPOSITION OF THE DAY-NIGHT TERMINATORS OF HD 189733b: ATMOSPHERIC RETRIEVAL WITH AEROSOLS. Astrophysical Journal, 2014, 789, 14.	1.6	32
99	Cloud structure and composition of Jupitera€™s troposphere from 5-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si8.gif" overflow="scroll"><mml:mrow><mml:mi mathvariant="normal">Î¼</mml:mi></mml:mrow></mml:math>m Cassini VIMS spectroscopy. Icarus, 2015, 257, 457-470.	1.1	32
100	Seasonal variability of Saturnâ€™s tropospheric temperatures, winds and para-H2 from Cassini far-IR spectroscopy. Icarus, 2016, 264, 137-159.	1.1	32
101	Seasonal evolution of C₂N₂, C₃H₄, and C₄H₂ abundances in Titanâ€™s lower stratosphere. Astronomy and Astrophysics, 2018, 609, A64.	2.1	32
102	Water vapor abundance in Venus' middle atmosphere from Pioneer Venus OIR and Venera 15 FTS measurements. Icarus, 2005, 173, 84-99.	1.1	31
103	Mapping Titan's HCN in the far infra-red: implications for photochemistry. Faraday Discussions, 2010, 147, 51.	1.6	31
104	ELUSIVE ETHYLENE DETECTED IN SATURN'S NORTHERN STORM REGION. Astrophysical Journal, 2012, 760, 24.	1.6	31
105	Meridional variations in stratospheric acetylene and ethane in the southern hemisphere of the saturnian atmosphere as determined from Cassini/CIRS measurements. Icarus, 2007, 190, 556-572.	1.1	30
106	Near-IR methane absorption in outer planet atmospheres: Improved models of temperature dependence and implications for Uranus cloud structure. Icarus, 2006, 182, 577-593.	1.1	29
107	Multispectral imaging observations of Neptuneâ€™s cloud structure with Gemini-North. Icarus, 2011, 216, 141-158.	1.1	28
108	Global energy budgets and â€˜Trenberth diagramsâ€™ for the climates of terrestrial and gas giant planets. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 703-720.	1.0	28

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109	Condensation in Titan's stratosphere during polar winter. Icarus, 2008, 197, 572-578.	1.1	27
110	Radiative forcing of the stratosphere of Jupiter, Part I: Atmospheric cooling rates from Voyager to Cassini. Planetary and Space Science, 2013, 88, 3-25.	0.9	27
111	Aerosol influence on energy balance of the middle atmosphere of Jupiter. Nature Communications, 2015, 6, 10231.	5.8	27
112	Isotopic fractionation of water and its photolytic products in the atmosphere of Mars. Nature Astronomy, 2021, 5, 943-950.	4.2	27
113	Latitudinal variation in the abundance of methane (CH4) above the clouds in Neptune's atmosphere from VLT/MUSE Narrow Field Mode Observations. Icarus, 2019, 331, 69-82.	1.1	26
114	Time variability of Neptuneâ€™s horizontal and vertical cloud structure revealed by VLT/SINFONI and Gemini/NIFS from 2009 to 2013. Icarus, 2016, 271, 418-437.	1.1	25
115	Latitudinal variability in Jupiterâ€™s tropospheric disequilibrium species: GeH4, AsH3 and PH3. Icarus, 2017, 289, 254-269.	1.1	25
116	Variability of CO concentrations in the Venus troposphere from Venus Express/VIRTIS using a Band Ratio Technique. Icarus, 2009, 201, 432-443.	1.1	24
117	Oxygen isotopic ratios in Martian water vapour observed by ACS MIR on board the ExoMars Trace Gas Orbiter. Astronomy and Astrophysics, 2019, 630, A91.	2.1	24
118	Evolution of stratospheric chemistry in the Saturn storm beacon region. Icarus, 2015, 261, 149-168.	1.1	23
119	Line-by-line analysis of Neptuneâ€™s near-IR spectrum observed with Gemini/NIFS and VLT/CRIRES. Icarus, 2014, 227, 37-48.	1.1	22
120	Jupiterâ€™s auroral-related stratospheric heating and chemistry I: Analysis of Voyager-IRIS and Cassini-CIRS spectra. Icarus, 2017, 292, 182-207.	1.1	22
121	Ice Giant Circulation Patterns: Implications for Atmospheric Probes. Space Science Reviews, 2020, 216, 21.	3.7	22
122	Jupiter's North Equatorial Belt expansion and thermal wave activity ahead of Juno's arrival. Geophysical Research Letters, 2017, 44, 7140-7148.	1.5	21
123	HST/WFC3 observations of Uranusâ€™ 2014 storm clouds and comparison with VLT/SINFONI and IRTF/Spex observations. Icarus, 2017, 288, 99-119.	1.1	21
124	Mapping Vinyl Cyanide and Other Nitriles in Titanâ€™s Atmosphere Using ALMA. Astronomical Journal, 2017, 154, 206.	1.9	21
125	Jupiterâ€™s auroral-related stratospheric heating and chemistry II: Analysis of IRTF-TEXES spectra measured in December 2014. Icarus, 2018, 300, 305-326.	1.1	21
126	Detection of Propadiene on Titan. Astrophysical Journal Letters, 2019, 881, L33.	3.0	21

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127	Exoplanetary Monte Carlo radiative transfer with correlated-k â€“ I. Benchmarking transit and emission observables. Monthly Notices of the Royal Astronomical Society, 2019, 487, 2082-2096.	1.6	21
128	Colour and tropospheric cloud structure of Jupiter from MUSE/VLT: Retrieving a universal chromophore. Icarus, 2020, 338, 113589.	1.1	21
129	Uranusâ€™ cloud particle properties and latitudinal methane variation from IRTF SpeX observations. Icarus, 2013, 223, 684-698.	1.1	20
130	From Voyager-IRIS to Cassini-CIRS: Interannual variability in Saturnâ€™s stratosphere?. Icarus, 2014, 233, 281-292.	1.1	20
131	Assessing the long-term variability of acetylene and ethane in the stratosphere of Jupiter. Icarus, 2018, 305, 301-313.	1.1	20
132	Neptune and Uranus: ice or rock giants?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190489.	1.6	20
133	Revised vertical cloud structure of Uranus from UKIRT/UIST observations and changes seen during Uranusâ€™ Northern Spring Equinox from 2006 to 2008: Application of new methane absorption data and comparison with Neptune. Icarus, 2010, 208, 913-926.	1.1	19
134	Further seasonal changes in Uranusâ€™ cloud structure observed by Gemini-North and UKIRT. Icarus, 2012, 218, 47-55.	1.1	19
135	The transit spectra of Earth and Jupiter. Icarus, 2014, 242, 172-187.	1.1	19
136	Haze and cloud structure of Saturn's North Pole and Hexagon Wave from Cassini/ISS imaging. Icarus, 2018, 305, 284-300.	1.1	19
137	Latitudinal Variations in Uranus' Vertical Cloud Structure from UKIRT UIST Observations. Astrophysical Journal, 2007, 665, L71-L74.	1.6	18
138	Vertical cloud structure of Uranus from UKIRT/UIST observations and changes seen during Uranusâ€™ northern spring equinox from 2006 to 2008. Icarus, 2009, 203, 287-302.	1.1	18
139	AN EXTERNAL ORIGIN FOR CARBON MONOXIDE ON URANUS FROM HERSCHEL /SPIRE?. Astrophysical Journal Letters, 2013, 775, L49.	3.0	18
140	Reanalysis of Uranusâ€™ cloud scattering properties from IRTF/SpeX observations using a self-consistent scattering cloud retrieval scheme. Icarus, 2015, 250, 462-476.	1.1	18
141	Spectral analysis of Uranusâ€™ 2014 bright storm with VLT/SINFONI. Icarus, 2016, 264, 72-89.	1.1	18
142	Jupiter's auroral-related stratospheric heating and chemistry III: Abundances of C2H4, CH3C2H, C4H2 and C6H6 from Voyager-IRIS and Cassini-CIRS. Icarus, 2019, 328, 176-193.	1.1	18
143	Neptuneâ€™s carbon monoxide profile and phosphine upper limits from Herschel/SPIRE: Implications for interior structure and formation. Icarus, 2019, 319, 86-98.	1.1	18
144	Hazy Blue Worlds: A Holistic Aerosol Model for Uranus and Neptune, Including Dark Spots. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	18

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145	Uranusâ€™ cloud structure and seasonal variability from Gemini-North and UKIRT observations. Icarus, 2011, 212, 339-350.	1.1	17
146	A brightening of Jupiterâ€™s auroral 7.8-Î¼m CH4 emission during a solar-wind compression. Nature Astronomy, 2019, 3, 607-613.	4.2	17
147	Spatial and seasonal variations in C3H hydrocarbon abundance in Titanâ€™s stratosphere from Cassini CIRS observations. Icarus, 2019, 317, 454-469.	1.1	17
148	Potential vorticity structure of Titanâ€™s polar vortices from Cassini CIRS observations. Icarus, 2021, 354, 114030.	1.1	17
149	Seasonal reappearance of HCl in the atmosphere of Mars during the Mars year 35 dusty season. Astronomy and Astrophysics, 2021, 647, A161.	2.1	17
150	Small-scale composition and haze layering in Titanâ€™s polar vortex. Icarus, 2009, 204, 645-657.	1.1	16
151	A tropical haze band in Titanâ€™s stratosphere. Icarus, 2010, 207, 485-490.	1.1	16
152	Latitudinal variation of upper tropospheric NH3 on Saturn derived from Cassini/CIRS far-infrared measurements. Planetary and Space Science, 2012, 73, 347-363.	0.9	16
153	Spatial variations in Titanâ€™s atmospheric temperature: ALMA and Cassini comparisons from 2012 to 2015. Icarus, 2018, 307, 380-390.	1.1	16
154	Constraints on Uranus's haze structure, formation and transport. Icarus, 2019, 333, 1-11.	1.1	16
155	New upper limits for hydrogen halides on Saturn derived from Cassini-CIRS data. Icarus, 2006, 185, 466-475.	1.1	15
156	Compositional evidence for Titan's stratospheric tilt. Planetary and Space Science, 2010, 58, 792-800.	0.9	15
157	D/H Ratios on Saturn and Jupiter from Cassini CIRS. Astronomical Journal, 2017, 154, 178.	1.9	15
158	Uranus in Northern Midspring: Persistent Atmospheric Temperatures and Circulations Inferred from Thermal Imaging. Astronomical Journal, 2020, 159, 45.	1.9	15
159	The role of ice lines in the formation of Uranus and Neptune. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20200107.	1.6	15
160	Far-infrared opacity sources in Titanâ€™s troposphere reconsidered. Icarus, 2010, 209, 854-857.	1.1	14
161	How does thermal scattering shape the infrared spectra of cloudy exoplanets? A theoretical framework and consequences for atmospheric retrievals in the JWST era. Monthly Notices of the Royal Astronomical Society, 2021, 506, 1309-1332.	1.6	14
162	Cloud Structure And Composition Of Jupiter's Atmosphere. Surveys in Geophysics, 1999, 20, 505-535.	2.1	13

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163	Upper limits on hydrogen halides in Jupiter from Cassini/CIRS observations. Icarus, 2004, 170, 237-241.	1.1	13
164	Quantifying the effect of finite field-of-view size on radiative transfer calculations of Titanâ€™s limb spectra measured by Cassini-CIRS. Astrophysics and Space Science, 2007, 310, 293-305.	0.5	13
165	Ethane in Titanâ€™s Stratosphere from Cassini CIRS Far- and Mid-infrared Spectra. Astronomical Journal, 2019, 157, 160.	1.9	13
166	Seasonal evolution of temperatures in Titan's lower stratosphere. Icarus, 2020, 344, 113188.	1.1	13
167	Upper limits for PH3 and H2S in Titanâ€™s atmosphere from Cassini CIRS. Icarus, 2013, 224, 253-256.	1.1	12
168	Independent evolution of stratospheric temperatures in Jupiter's northern and southern auroral regions from 2014 to 2016. Geophysical Research Letters, 2017, 44, 5345-5354.	1.5	12
169	Ammonia in Jupiter's Troposphere From Highâ€Resolution 5ÂÎ¼m Spectroscopy. Geophysical Research Letters, 2017, 44, 10,838.	1.5	12
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