Leslie A Young

List of Publications by Year
in descending order

164 papers	7,662 citations	38738 50 h-index	60616 81 g-index
164 all docs	164 docs citations	164 times ranked	2862 citing authors

#	Article	IF	Citations
1	Evaluation of short-term temporal evolution of Plutoâ€™s surface composition from 2014â€“2017 with APO/TripleSpec. Icarus, 2022, 373, 114729.	2.5	4
2	Volatile transport modeling on Triton with new observational constraints. Icarus, 2022, 373, 114764.	2.5	7
3	Tracing seasonal trends across Plutoâ€™s craters: New Horizons Ralph/MVIC results. Icarus, 2022, 373, 114771.	2.5	1
4	A bimodal distribution of haze in Plutoâ€™s atmosphere. Nature Communications, 2022, 13, 240.	12.8	5
5	Excited state photochemically driven surface formation of benzene from acetylene ices on Pluto and in the outer solar system. Physical Chemistry Chemical Physics, 2022, 24, 1424-1436.	2.8	4
6	Anomalous Flux in the Cosmic Optical Background Detected with New Horizons Observations. Astrophysical Journal Letters, 2022, 927, L8.	8.3	32
7	Large-scale cryovolcanic resurfacing on Pluto. Nature Communications, 2022, 13, 1542.	12.8	15
8	The Diverse Shapes of Dwarf Planet and Large KBO Phase Curves Observed from New Horizons. Planetary Science Journal, 2022, 3, 95.	3.6	10
9	A Near-surface Temperature Model of Arrokoth. Planetary Science Journal, 2022, 3, 110.	3.6	9
10	A Predicted Dearth of Majority Hypervolatile Ices in Oort Cloud Comets. Planetary Science Journal, 2022, 3, 112.	3.6	15
11	Upper Limits on the Escape of Volatiles from (486958) Arrokoth Using New Horizons Alice Ultraviolet Spectrograph Observations. Planetary Science Journal, 2022, 3, 111.	3.6	3
12	Detection of Radio Thermal Emission from the Kuiper Belt Object (486958) Arrokoth during the New Horizons Encounter. Planetary Science Journal, 2022, 3, 109.	3.6	3
13	Pluto's Far Side. Icarus, 2021, 356, 113805.	2.5	18
14	Cryovolcanic flooding in Viking Terra on Pluto. Icarus, 2021, 356, 113786.	2.5	9
15	Global compositional cartography of Pluto from intensity-based registration of LEISA data. Icarus, 2021, 356, 113833.	2.5	9
16	Distribution and energy balance of Plutoâ€™s nitrogen ice, as seen by New Horizons in 2015. Icarus, 2021, 356, 113633.	2.5	6
17	Constraints on Plutoâ€™s H and CH4 profiles from New Horizons Alice LyÎ± observations. Icarus, 2021, 356, 113973.	2.5	2
18	A major ice component in Plutoâ€™s haze. Nature Astronomy, 2021, 5, 289-297.	10.1	19

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19	On the origin & thermal stability of Arrokoth's and Pluto's ices. Icarus, 2021, 356, 114072.	2.5	31
20	Modeling Plutoâ€™s minimum pressure: Implications for haze production. Icarus, 2021, 356, 114070.	2.5	10
21	Persephone: A Pluto-system Orbiter and Kuiper Belt Explorer. Planetary Science Journal, 2021, 2, 75.	3.6	7
22	Plutoâ€™s Haze Abundance and Size Distribution from Limb Scatter Observations by MVIC. Planetary Science Journal, 2021, 2, 91.	3.6	5
23	Pluto's Sputnik Planitia: Composition of geological units from infrared spectroscopy. Icarus, 2021, 359, 114303.	2.5	5
24	Charonâ€™s Far Side Geomorphology. Planetary Science Journal, 2021, 2, 141.	3.6	2
25	High-resolution radiometry of Pluto at 4.2Âcm with New Horizons. Icarus, 2021, 363, 114430.	2.5	1
26	New Constraints on Plutoâ€™s Sputnik Planitia Ice Sheet from a Coupled Reorientationâ€“Climate Model. Planetary Science Journal, 2021, 2, 194.	3.6	5
27	New Horizons Observations of the Cosmic Optical Background. Astrophysical Journal, 2021, 906, 77.	4.5	42
28	The Dark Side of Pluto. Planetary Science Journal, 2021, 2, 214.	3.6	2
29	New Horizons Detection of the Local Galactic Lyman-Î± Background. Astronomical Journal, 2021, 162, 241.	4.7	7
30	Volatile evolution and atmospheres of Trans-Neptunian objects. , 2020, , 127-151.		3
31	The Pluto system after New Horizons. , 2020, , 271-288.		9
32	Charon: A Brief History of Tides. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006449.	3.6	4
33	New Horizons Observations of an Ultraviolet Stellar Occultation and Appulse by Plutoâ€™s Atmosphere. Astronomical Journal, 2020, 159, 26.	4.7	3
34	In-flight Performance and Calibration of the LOng Range Reconnaissance Imager (LORRI) for the New Horizons Mission. Publications of the Astronomical Society of the Pacific, 2020, 132, 035003.	3.1	14
35	Color, composition, and thermal environment of Kuiper Belt object (486958) Arrokoth. Science, 2020, 367, .	12.6	64
36	The geology and geophysics of Kuiper Belt object (486958) Arrokoth. Science, 2020, 367, .	12.6	76

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37	The solar nebula origin of (486958) Arrokoth, a primordial contact binary in the Kuiper Belt. Science, 2020, 367, .	12.6	79
38	Disk-resolved Photometric Properties of Pluto and the Coloring Materials across its Surface. Astronomical Journal, 2020, 159, 74.	4.7	18
39	Pluto's Beating Heart Regulates the Atmospheric Circulation: Results From Highâ€Resolution and Multiyear Numerical Climate Simulations. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006120.	3.6	16
40	Pluto's Ultraviolet Spectrum, Surface Reflectance, and Airglow Emissions. Astronomical Journal, 2020, 159, 274.	4.7	12
41	Influence of Solar Disturbances on Galactic Cosmic Rays in the Solar Wind, Heliosheath, and Local Interstellar Medium: Advanced Composition Explorer, New Horizons, and Voyager Observations. Astrophysical Journal, 2020, 905, 69.	4.5	15
42	Plutoâ€™s Volatile and Climate Cycles on Short and Long Timescales. , 2020, , 1-1.		2
43	Suprathermal Ions in the Outer Heliosphere. Astrophysical Journal, 2019, 876, 46.	4.5	15
44	Phase Curves from the Kuiper Belt: Photometric Properties of Distant Kuiper Belt Objects Observed by New Horizons. Astronomical Journal, 2019, 158, 123.	4.7	14
45	The nature and origin of Charon's smooth plains. Icarus, 2019, 323, 16-32.	2.5	26
46	Geologic Landforms and Chronostratigraphic History of Charon as Revealed by a Hemispheric Geologic Map. Journal of Geophysical Research E: Planets, 2019, 124, 155-174.	3.6	11
47	Detection of ammonia on Plutoâ€™s surface in a region of geologically recent tectonism. Science Advances, 2019, 5, eaav5731.	10.3	49
48	New Horizons Observations of the Atmosphere of Pluto. Annual Review of Earth and Planetary Sciences, 2019, 47, 119-140.	11.0	22
49	Initial results from the New Horizons exploration of 2014 MU ₆₉ , a small Kuiper Belt object. Science, 2019, 364, .	12.6	113
50	Constraining the IMF at Pluto Using New Horizons SWAP Data and Hybrid Simulations. Journal of Geophysical Research: Space Physics, 2019, 124, 1568-1581.	2.4	2
51	The CH4 cycles on Pluto over seasonal and astronomical timescales. Icarus, 2019, 329, 148-165.	2.5	38
52	Recent cryovolcanism in Virgil Fossae on Pluto. Icarus, 2019, 330, 155-168.	2.5	45
53	Impact craters on Pluto and Charon indicate a deficit of small Kuiper belt objects. Science, 2019, 363, 955-959.	12.6	116
54	New Horizons Photometry of Pluto's Moon Charon. Astrophysical Journal Letters, 2019, 874, L3.	8.3	8

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55	Prebiotic Chemistry of Pluto. Astrobiology, 2019, 19, 831-848.	3.0	26
56	Pluto's Interaction With Energetic Heliospheric Ions. Journal of Geophysical Research: Space Physics, 2019, 124, 7413-7424.	2.4	4
57	The distribution of H2O, CH3OH, and hydrocarbon-ices on Pluto: Analysis of New Horizons spectral images. Icarus, 2019, 331, 148-169.	2.5	21
58	Washboard and fluted terrains on Pluto as evidence for ancient glaciation. Nature Astronomy, 2019, 3, 62-68.	10.1	10
59	Ongoing resurfacing of KBO Eris by volatile transport in local, collisional, sublimation atmosphere regime. Icarus, 2019, 334, 52-61.	2.5	15
60	Radio thermal emission from Pluto and Charon during the New Horizons encounter. Icarus, 2019, 322, 192-209.	2.5	8
61	Lower atmosphere and pressure evolution on Pluto from ground-based stellar occultations, 1988â€“2016. Astronomy and Astrophysics, 2019, 625, A42.	5.1	29
62	An upper limit on Plutoâ€™s ionosphere from radio occultation measurements with New Horizons. Icarus, 2018, 307, 17-24.	2.5	30
63	TheÂnitrogenÂcyclesÂonÂPlutoÂoverÂseasonalÂand astronomicalÂtimescales. Icarus, 2018, 309, 277-296.	2.5	54
64	Albedo matters: Understanding runaway albedo variations on Pluto. Icarus, 2018, 303, 1-9.	2.5	17
65	Phase Curves of Nix and Hydra from the New Horizons Imaging Cameras. Astrophysical Journal Letters, 2018, 852, L35.	8.3	6
66	The New Horizons and Hubble Space Telescope search for rings, dust, and debris in the Pluto-Charon system. Icarus, 2018, 301, 155-172.	2.5	11
67	Bladed Terrain on Pluto: Possible origins and evolution. Icarus, 2018, 300, 129-144.	2.5	47
68	Ices on Charon: Distribution of H2O and NH3 from New Horizons LEISA observations. Icarus, 2018, 300, 21-32.	2.5	38
69	Structure and composition of Pluto's atmosphere from the New Horizons solar ultraviolet occultation. Icarus, 2018, 300, 174-199.	2.5	90
70	A search for temporal changes on Pluto and Charon. Icarus, 2018, 302, 273-284.	2.5	12
71	Investigation of Charon's Craters With Abrupt Terminus Ejecta, Comparisons With Other Icy Bodies, and Formation Implications. Journal of Geophysical Research E: Planets, 2018, 123, 20-36.	3.6	9
72	The Pluto System After New Horizons. Annual Review of Astronomy and Astrophysics, 2018, 56, 357-392.	24.3	72

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73	Determining the Alpha to Proton Density Ratio for the New Horizons Solar Wind Observations. Astrophysical Journal, 2018, 866, 85.	4.5	10
74	Composition of Plutoâ€™s small satellites: Analysis of New Horizons spectral images. Icarus, 2018, 315, 30-45.	2.5	49
75	Breaking up is hard to do: Global cartography and topography of Pluto's mid-sized icy Moon Charon from New Horizons. Icarus, 2018, 315, 124-145.	2.5	29
76	K2 precision lightcurve: Twelve days in the Pluto-Charon system. Icarus, 2018, 314, 265-273.	2.5	6
77	Great Expectations: Plans and Predictions for New Horizons Encounter With Kuiper Belt Object 2014 MU₆₉ (â€œUltima Thuleâ€). Geophysical Research Letters, 2018, 45, 8111-8120.	4.0	14
78	The Lymanâ€Î± Sky Background as Observed by New Horizons. Geophysical Research Letters, 2018, 45, 8022-8028.	4.0	19
79	Pluto's haze as a surface material. Icarus, 2018, 314, 232-245.	2.5	50
80	Methane distribution on Pluto as mapped by the New Horizons Ralph/MVIC instrument. Icarus, 2018, 314, 195-209.	2.5	14
81	Basins, fractures and volcanoes: Global cartography and topography of Pluto from New Horizons. Icarus, 2018, 314, 400-433.	2.5	75
82	Inflight radiometric calibration of New Horizonsâ€™ Multispectral Visible Imaging Camera (MVIC). Icarus, 2017, 287, 140-151.	2.5	14
83	Geological mapping of Sputnik Planitia on Pluto. Icarus, 2017, 287, 261-286.	2.5	52
84	Modeling glacial flow on and onto Plutoâ€™s Sputnik Planitia. Icarus, 2017, 287, 301-319.	2.5	38
85	Haze in Pluto's atmosphere. Icarus, 2017, 290, 112-133.	2.5	72
86	Pluto: Pits and mantles on uplands north and east of Sputnik Planitia. Icarus, 2017, 293, 218-230.	2.5	24
87	Radio occultation measurements of Plutoâ€™s neutral atmosphere with New Horizons. Icarus, 2017, 290, 96-111.	2.5	74
88	Charon tectonics. Icarus, 2017, 287, 161-174.	2.5	30
89	Physical state and distribution of materials at the surface of Pluto from New Horizons LEISA imaging spectrometer. Icarus, 2017, 287, 229-260.	2.5	99
90	Past epochs of significantly higher pressure atmospheres on Pluto. Icarus, 2017, 287, 47-53.	2.5	54

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91	Measuring temperature and ammonia hydrate ice on Charon in 2015 from Keck/OSIRIS spectra. Icarus, 2017, 284, 394-406.	2.5	15
92	Plutoâ€™s global surface composition through pixel-by-pixel Hapke modeling of New Horizons Ralph/LEISA data. Icarus, 2017, 287, 218-228.	2.5	95
93	The Global Color of Pluto from New Horizons. Astronomical Journal, 2017, 154, 258.	4.7	25
94	New Horizons Upper Limits on O₂ in Plutoâ€™s Present Day Atmosphere. Astronomical Journal, 2017, 154, 55.	4.7	7
95	Constraints on the microphysics of Pluto's photochemical haze from New Horizons observations. Icarus, 2017, 287, 116-123.	2.5	73
96	Global albedos of Pluto and Charon from LORRI New Horizons observations. Icarus, 2017, 287, 207-217.	2.5	82
97	Climate zones on Pluto and Charon. Icarus, 2017, 287, 30-36.	2.5	34
98	Sublimation as a landform-shaping process on Pluto. Icarus, 2017, 287, 320-333.	2.5	51
99	Mean radius and shape of Pluto and Charon from New Horizons images. Icarus, 2017, 287, 12-29.	2.5	105
100	Present and past glaciation on Pluto. Icarus, 2017, 287, 287-300.	2.5	43
101	Long-term surface temperature modeling of Pluto. Icarus, 2017, 287, 37-46.	2.5	55
102	The photochemistry of Pluto's atmosphere as illuminated by New Horizons. Icarus, 2017, 287, 110-115.	2.5	75
103	Charon's light curves, as observed by New Horizonsâ€™ Ralph color camera (MVIC) on approach to the Pluto system. Icarus, 2017, 287, 152-160.	2.5	2
104	New Horizons constraints on Charon's present day atmosphere. Icarus, 2017, 287, 124-130.	2.5	32
105	Craters of the Pluto-Charon system. Icarus, 2017, 287, 187-206.	2.5	59
106	Origin of the Plutoâ€“Charon system: Constraints from the New Horizons flyby. Icarus, 2017, 287, 2-11.	2.5	99
107	Volatile transport on inhomogeneous surfaces: II. Numerical calculations (VT3D). Icarus, 2017, 284, 443-476.	2.5	10
108	The rapid formation of Sputnik Planitia early in Plutoâ€™s history. Nature, 2016, 540, 97-99.	27.8	34

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109	INTERPLANETARY MAGNETIC FIELD SECTOR FROM SOLAR WIND AROUND PLUTO (SWAP) MEASUREMENTS OF HEAVY ION PICKUP NEAR PLUTO. Astrophysical Journal Letters, 2016, 823, L30.	8.3	13
110	THE FIRST HIGH-PHASE OBSERVATIONS OF A KBO: NEW HORIZONS IMAGING OF (15810) 1994 JR₁ FROM THE KUIPER BELT. Astrophysical Journal Letters, 2016, 828, L15.	8.3	14
111	Reorientation of Sputnik Planitia implies a subsurface ocean on Pluto. Nature, 2016, 540, 94-96.	27.8	108
112	The formation of Charonâ€™s red poles from seasonally cold-trapped volatiles. Nature, 2016, 539, 65-68.	27.8	44
113	Pluto's interaction with the solar wind. Journal of Geophysical Research: Space Physics, 2016, 121, 4232-4246.	2.4	32
114	Convection in a volatile nitrogen-ice-rich layer drives Plutoâ€™s geological vigour. Nature, 2016, 534, 82-85.	27.8	102
115	The atmosphere of Pluto as observed by New Horizons. Science, 2016, 351, aad8866.	12.6	201
116	Plutoâ€™s interaction with its space environment: Solar wind, energetic particles, and dust. Science, 2016, 351, aad9045.	12.6	60
117	The small satellites of Pluto as observed by New Horizons. Science, 2016, 351, aae0030.	12.6	78
118	The geology of Pluto and Charon through the eyes of New Horizons. Science, 2016, 351, 1284-1293.	12.6	219
119	Surface compositions across Pluto and Charon. Science, 2016, 351, aad9189.	12.6	242
120	VOLATILE LOSS AND CLASSIFICATION OF KUIPER BELT OBJECTS. Astrophysical Journal, 2015, 809, 43.	4.5	27
121	The Pluto system: Initial results from its exploration by New Horizons. Science, 2015, 350, aad1815.	12.6	407
122	Plutoâ€™s climate modeled with new observational constraints. Icarus, 2015, 246, 183-191.	2.5	50
123	Gas transfer in the Plutoâ€“Charon system: A Charon atmosphere. Icarus, 2015, 246, 291-297.	2.5	24
124	Seasonal variations in Plutoâ€™s atmospheric tides. Icarus, 2015, 246, 247-267.	2.5	10
125	Evidence that Plutoâ€™s atmosphere does not collapse from occultations including the 2013 May 04 event. Icarus, 2015, 246, 220-225.	2.5	49
126	Evidence for longitudinal variability of ethane ice on the surface of Pluto. Icarus, 2014, 243, 104-110.	2.5	18

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127	Gravity waves in Titanâ€™s lower stratosphere from Huygens probe in situ temperature measurements. Icarus, 2014, 227, 49-55.	2.5	14
128	Near-infrared spectral monitoring of Plutoâ€™s ices II: Recent decline of CO and N2 ice absorptions. Icarus, 2014, 235, 220-224.	2.5	17
129	Near-infrared spectral monitoring of Plutoâ€™s ices: Spatial distribution and secular evolution. Icarus, 2013, 223, 710-721.	2.5	70
130	PLUTO'S SEASONS: NEW PREDICTIONS FOR NEW HORIZONS. Astrophysical Journal Letters, 2013, 766, L22.	8.3	96
131	Volatile transport on inhomogeneous surfaces: I â€“ Analytic expressions, with application to Plutoâ€™s day. Icarus, 2012, 221, 80-88.	2.5	28
132	New Horizons Alice ultraviolet observations of a stellar occultation by Jupiterâ€™s atmosphere. Icarus, 2010, 208, 293-305.	2.5	20
133	PLUTO AND CHARON WITH THEHUBBLE SPACE TELESCOPE. II. RESOLVING CHANGES ON PLUTOâ€™S SURFACE AND A MAP FOR CHARON. Astronomical Journal, 2010, 139, 1128-1143.	4.7	69
134	PLUTO AND CHARON WITH THEHUBBLE SPACE TELESCOPE.I. MONITORING GLOBAL CHANGE AND IMPROVED SURFACE PROPERTIES FROM LIGHT CURVES. Astronomical Journal, 2010, 139, 1117-1127.	4.7	49
135	RAPID COMPUTATION OF OCCULTATION LIGHTCURVES USING FOURIER DECOMPOSITION. Astronomical Journal, 2009, 137, 3398-3403.	4.7	3
136	New Horizons: Encountering Pluto and KBOs. Proceedings of the International Astronomical Union, 2009, 5, 305-311.	0.0	3
137	Ralph: A Visible/Infrared Imager for the New Horizons Pluto/Kuiper Belt Mission. , 2009, , 129-154.		3
138	Ralph: A Visible/Infrared Imager for the New Horizons Pluto/Kuiper Belt Mission. Space Science Reviews, 2008, 140, 129-154.	8.1	141
139	Overview of the New Horizons Science Payload. Space Science Reviews, 2008, 140, 75-91.	8.1	50
140	ALICE: The Ultraviolet Imaging Spectrograph Aboard the New Horizons Plutoâ€“Kuiper Belt Mission. Space Science Reviews, 2008, 140, 155-187.	8.1	111
141	New Horizons: Anticipated Scientific Investigations atÂtheÂPluto System. Space Science Reviews, 2008, 140, 93-127.	8.1	74
142	VERTICAL STRUCTURE IN PLUTO'S ATMOSPHERE FROM THE 2006 JUNE 12 STELLAR OCCULTATION. Astronomical Journal, 2008, 136, 1757-1769.	4.7	79
143	Polar Lightning and Decadal-Scale Cloud Variability on Jupiter. Science, 2007, 318, 226-229.	12.6	52
144	Pluto's Spectrum from 1.0 to 4.2 Î¼m: Implications for Surface Properties. Astronomical Journal, 2007, 133, 420-431.	4.7	47

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145	Jupiter's Nightside Airglow and Aurora. Science, 2007, 318, 229-231.	12.6	24
146	Io's Atmospheric Response to Eclipse: UV Aurorae Observations. Science, 2007, 318, 237-240.	12.6	41
147	Jupiter Cloud Composition, Stratification, Convection, and Wave Motion: A View from New Horizons. Science, 2007, 318, 223-225.	12.6	48
148	New Constraints on Additional Satellites of the Pluto System. Astronomical Journal, 2006, 132, 614-619.	4.7	17
149	Discovery of two new satellites of Pluto. Nature, 2006, 439, 943-945.	27.8	148
150	A giant impact origin for Pluto's small moons and satellite multiplicity in the Kuiper belt. Nature, 2006, 439, 946-948.	27.8	108
151	Orbits and Photometry of Pluto's Satellites: Charon, S/2005 P1, and S/2005 P2. Astronomical Journal, 2006, 132, 290-298.	4.7	90
152	Gravity waves in Jupiter's stratosphere, as measured by the Galileo ASI experiment. Icarus, 2005, 173, 185-199.	2.5	31
153	Near-infrared spectral monitoring of Triton with IRTF/SpeX I: establishing a baseline for rotational variability. Icarus, 2004, 172, 455-465.	2.5	33
154	Finding KBO Flyby Targets for New Horizons. Earth, Moon and Planets, 2003, 92, 483-491.	0.6	10
155	Stellar Occultation Observations of Saturn's North-Polar Temperature Structure. Icarus, 1998, 132, 298-310.	2.5	14
156	Thermal structure of Jupiter's atmosphere near the edge of a 5-Î¼m hot spot in the north equatorial belt. Journal of Geophysical Research, 1998, 103, 22857-22889.	3.3	304
157	Thermal Structure of Jupiter's Upper Atmosphere Derived from the Galileo Probe. Science, 1997, 276, 102-104.	12.6	88
158	Gravity Waves in Jupiter's Thermosphere. Science, 1997, 276, 108-111.	12.6	102
159	Detection of Gaseous Methane on Pluto. Icarus, 1997, 127, 258-262.	2.5	81
160	The Thermal Structure of Triton's Atmosphere: Results from the 1993 and 1995 Occultations. Icarus, 1997, 129, 178-201.	2.5	52
161	Surface Ices and the Atmospheric Composition of Pluto. Science, 1993, 261, 745-748.	12.6	358
162	Analysis of stellar occultation data for planetary atmospheres. I - Model fitting, with application to Pluto. Astronomical Journal, 1992, 103, 991.	4.7	116

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163	Limits on the radius and a possible atmosphere of Charon from its 1980 stellar occultation. Icarus, 1991, 89, 244-254.	2.5	22
164	Pluto's atmosphere. Icarus, 1989, 77, 148-170.	2.5	171