J L Lunine

List of Publications by Year
in descending order

383	31,546	3933 88	5988 160
papers	citations	h-index	g-index

390	390	390	11131
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The James Webb Space Telescope. Space Science Reviews, 2006, 123, 485-606.	8.1	1,201
2	A Nongray Theory of Extrasolar Giant Planets and Brown Dwarfs. Astrophysical Journal, 1997, 491, 856-875.	4.5	1,136
3	The abundances of constituents of Titan's atmosphere from the GCMS instrument on the Huygens probe. Nature, 2005, 438, 779-784.	27.8	848
4	Source regions and timescales for the delivery of water to the Earth. Meteoritics and Planetary Science, 2000, 35, 1309-1320.	1.6	701
5	The theory of brown dwarfs and extrasolar giant planets. Reviews of Modern Physics, 2001, 73, 719-765.	45.6	618
6	Cassini Ion and Neutral Mass Spectrometer: Enceladus Plume Composition and Structure. Science, 2006, 311, 1419-1422.	12.6	590
7	Rain, winds and haze during the Huygens probe's descent to Titan's surface. Nature, 2005, 438, 765-778.	27.8	529
8	The lakes of Titan. Nature, 2007, 445, 61-64.	27.8	507
9	Liquid water on Enceladus from observations of ammonia and 40Ar in the plume. Nature, 2009, 460, 487-490.	27.8	470
10	Remote Sensing of Planetary Properties and Biosignatures on Extrasolar Terrestrial Planets. Astrobiology, 2002, 2, 153-181.	3.0	433
11	Making other earths: dynamical simulations of terrestrial planet formation and water delivery. Icarus, 2004, 168, 1-17.	2.5	396
12	Cassini finds molecular hydrogen in the Enceladus plume: Evidence for hydrothermal processes. Science, 2017, 356, 155-159.	12.6	396
13	Building Terrestrial Planets. Annual Review of Earth and Planetary Sciences, 2012, 40, 251-275.	11.0	392
14	Composition of Titan's lower atmosphere and simple surface volatiles as measured by the Cassiniâ€Huygens probe gas chromatograph mass spectrometer experiment. Journal of Geophysical Research, 2010, 115, .	3.3	377
15	Episodic outgassing as the origin of atmospheric methane on Titan. Nature, 2006, 440, 61-64.	27.8	356
16	The Sand Seas of Titan: Cassini RADAR Observations of Longitudinal Dunes. Science, 2006, 312, 724-727.	12.6	351
17	Rapid formation of Jupiter by diffusive redistribution of water vapor in the solar nebula. Icarus, 1988, 75, 146-155.	2.5	347
18	The Gravity Field and Interior Structure of Enceladus. Science, 2014, 344, 78-80.	12.6	339

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19	Giant Planets at Small Orbital Distances. Astrophysical Journal, 1996, 459, .	4.5	338
20	Thermodynamics of clathrate hydrate at low and high pressures with application to the outer solar system. Astrophysical Journal, Supplement Series, 1985, 58, 493.	7.7	330
21	Ethane Ocean on Titan. Science, 1983, 222, 1229-1230.	12.6	328
22	High-resolution simulations of the final assembly of Earth-like planets I. Terrestrial accretion and dynamics. Icarus, 2006, 183, 265-282.	2.5	323
23	Ultraviolet Spectrometer Observations of Neptune and Triton. Science, 1989, 246, 1459-1466.	12.6	308
24	Orbital Evolution and Migration of Giant Planets: Modeling Extrasolar Planets. Astrophysical Journal, 1998, 500, 428-439.	4.5	272
25	Beyond the T Dwarfs: Theoretical Spectra, Colors, and Detectability of the Coolest Brown Dwarfs. Astrophysical Journal, 2003, 596, 587-596.	4.5	265
26	Observations of Transiting Exoplanets with the James Webb Space Telescope (JWST). Publications of the Astronomical Society of the Pacific, 2014, 126, 1134-1173.	3.1	245
27	The Tides of Titan. Science, 2012, 337, 457-459.	12.6	237
28	Cassini Radar Views the Surface of Titan. Science, 2005, 308, 970-974.	12.6	231
29	Jupiterâ€™s interior and deep atmosphere: The initial pole-to-pole passes with the Juno spacecraft. Science, 2017, 356, 821-825.	12.6	229
30	Clathrate and ammonia hydrates at high pressure: Application to the origin of methane on Titan. Icarus, 1987, 70, 61-77.	2.5	228
31	Hydrocarbon lakes on Titan: Distribution and interaction with a porous regolith. Geophysical Research Letters, 2008, 35, .	4.0	227
32	A Theory of Extrasolar Giant Planets. Astrophysical Journal, 1996, 460, 993.	4.5	225
33	The Juno Mission. Space Science Reviews, 2017, 213, 5-37.	8.1	222
34	Titan's internal structure inferred from a coupled thermal-orbital model. Icarus, 2005, 175, 496-502.	2.5	214
35	Formation of the galilean satellites in a gaseous nebula. Icarus, 1982, 52, 14-39.	2.5	209
36	Dunes on Titan observed by Cassini Radar. Icarus, 2008, 194, 690-703.	2.5	193

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37	Cryovolcanic features on Titan's surface as revealed by the Cassini Titan Radar Mapper. Icarus, 2007, 186, 395-412.	2.5	191
38	Titan, Mars and Earth : Entropy production by latitudinal heat transport. Geophysical Research Letters, 2001, 28, 415-418.	4.0	190
39	Jupiterâ€™s atmospheric jet streams extend thousands of kilometres deep. Nature, 2018, 555, 223-226.	27.8	189
40	On the Radii of Close-in Giant Planets. Astrophysical Journal, 2000, 534, L97-L100.	4.5	188
41	Hydrocarbon lakes on Titan. Icarus, 2007, 186, 385-394.	2.5	188
42	Titan's inventory of organic surface materials. Geophysical Research Letters, 2008, 35, .	4.0	184
43	Rapid and Extensive Surface Changes Near Titanâ€™s Equator: Evidence of April Showers. Science, 2011, 331, 1414-1417.	12.6	184
44	Theory of Extrasolar Giant Planet Transits. Astrophysical Journal, 2001, 560, 413-419.	4.5	184
45	Enrichments in Volatiles in Jupiter: A New Interpretation of the [ITAL]Galileo[/ITAL] Measurements. Astrophysical Journal, 2001, 550, L227-L230.	4.5	180
46	Titan's Rotation Reveals an Internal Ocean and Changing Zonal Winds. Science, 2008, 319, 1649-1651.	12.6	178
47	Measurement of Jupiterâ€™s asymmetric gravity field. Nature, 2018, 555, 220-222.	27.8	177
48	The origin of water on Mars. Icarus, 2003, 165, 1-8.	2.5	169
49	Correlations between Cassini VIMS spectra and RADAR SAR images: Implications for Titan's surface composition and the character of the Huygens Probe Landing Site. Planetary and Space Science, 2007, 55, 2025-2036.	1.7	168
50	Enrichment in volatiles in the giant planets of the Solar System. Planetary and Space Science, 2004, 52, 623-641.	1.7	167
51	A suppression of differential rotation in Jupiterâ€™s deep interior. Nature, 2018, 555, 227-230.	27.8	165
52	Radar: The Cassini Titan Radar Mapper. Space Science Reviews, 2004, 115, 71-110.	8.1	162
53	Compositional maps of Saturn's moon Phoebe from imaging spectroscopy. Nature, 2005, 435, 66-69.	27.8	155
54	High-Resolution Simulations of The Final Assembly of Earth-Like Planets. 2. Water Delivery And Planetary Habitability. Astrobiology, 2007, 7, 66-84.	3.0	153

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55	An asymmetric distribution of lakes on Titan as a possible consequence of orbital forcing. Nature Geoscience, 2009, 2, 851-854.	12.9	153
56	Fluvial channels on Titan: Initial Cassini RADAR observations. Planetary and Space Science, 2008, 56, 1132-1144.	1.7	151
57	New Debris Disks around Nearby Mainâ€Sequence Stars: Impact on the Direct Detection of Planets. Astrophysical Journal, 2006, 652, 1674-1693.	4.5	150
58	Detection and mapping of hydrocarbon deposits on Titan. Journal of Geophysical Research, 2010, 115, .	3.3	147
59	Enceladus' plume: Compositional evidence for a hot interior. Icarus, 2007, 187, 569-573.	2.5	145
60	Formation and Evolution of Planetary Systems: Upper Limits to the Gas Mass in Disks around Sunâ€like Stars. Astrophysical Journal, 2006, 651, 1177-1193.	4.5	142
61	Mountains on Titan observed by Cassini Radar. Icarus, 2007, 192, 77-91.	2.5	140
62	CARBON-RICH GIANT PLANETS: ATMOSPHERIC CHEMISTRY, THERMAL INVERSIONS, SPECTRA, AND FORMATION CONDITIONS. Astrophysical Journal, 2011, 743, 191.	4.5	137
63	AN ESTIMATE OF THE CHEMICAL COMPOSITION OF TITAN's LAKES. Astrophysical Journal, 2009, 707, L128-L131.	4.5	131
64	Iapetus' geophysics: Rotation rate, shape, and equatorial ridge. Icarus, 2007, 190, 179-202.	2.5	128
65	Cryovolcanism on Titan: New results from Cassini RADAR and VIMS. Journal of Geophysical Research E: Planets, 2013, 118, 416-435.	3.6	128
66	The methane cycle on Titan. Nature Geoscience, 2008, 1, 159-164.	12.9	124
67	Saturn's moon Phoebe as a captured body from the outer Solar System. Nature, 2005, 435, 69-71.	27.8	122
68	Distribution and interplay of geologic processes on Titan from Cassini radar data. Icarus, 2010, 205, 540-558.	2.5	122
69	The bathymetry of a Titan sea. Geophysical Research Letters, 2014, 41, 1432-1437.	4.0	119
70	Terrestrial Planet Formation in Disks with Varying Surface Density Profiles. Astrophysical Journal, 2005, 632, 670-676.	4.5	117
71	Transient surface liquid in Titanâ€™s polar regions from Cassini. Icarus, 2011, 211, 655-671.	2.5	113
72	Equation of state of ammonia-water liquid: Derivation and planetological applications. Icarus, 1988, 73, 279-293.	2.5	112

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73	Theory of Giant Planets. Annual Review of Astronomy and Astrophysics, 2002, 40, 103-136.	24.3	110
74	Determining Titan surface topography from Cassini SAR data. Icarus, 2009, 202, 584-598.	2.5	108
75	Sublimation and reformation of Icy grains in the primitive solar nebula. Icarus, 1991, 94, 333-344.	2.5	104
76	Distribution and Evolution of Water Ice in the Solar Nebula: Implications for Solar System Body Formation. Icarus, 1998, 135, 537-548.	2.5	104
77	Erosion on Titan: Past and Present. Icarus, 1996, 122, 79-91.	2.5	101
78	Photochemically Driven Collapse of Titan's Atmosphere. Science, 1997, 275, 642-644.	12.6	101
79	Topography and geomorphology of the Huygens landing site on Titan. Planetary and Space Science, 2007, 55, 2015-2024.	1.7	101
80	On the volatile inventory of Titan from isotopic abundances in nitrogen and methane. Planetary and Space Science, 1999, 47, 1291-1303.	1.7	100
81	GCM simulations of Titanâ€™s middle and lower atmosphere and comparison to observations. Icarus, 2015, 250, 516-528.	2.5	97
82	The water abundance in Jupiterâ€™s equatorial zone. Nature Astronomy, 2020, 4, 609-616.	10.1	96
83	Titan Radar Mapper observations from Cassini's T3 fly-by. Nature, 2006, 441, 709-713.	27.8	95
84	Ocean worlds exploration. Acta Astronautica, 2017, 131, 123-130.	3.2	93
85	ORIGINS OF SATELLITES. , 1986, , 39-88.		93
86	An interpretation of the nitrogen deficiency in comets. Icarus, 2003, 161, 511-532.	2.5	92
87	26Al decay: Heat production and a revised age for Iapetus. Icarus, 2009, 204, 658-662.	2.5	92
88	JIRAM, the Jovian Infrared Auroral Mapper. Space Science Reviews, 2017, 213, 393-446.	8.1	91
89	Production of Potentially Prebiotic Condensed Phosphates by Phosphorus Redox Chemistry. Angewandte Chemie - International Edition, 2008, 47, 7918-7920.	13.8	90
90	Clusters of cyclones encircling Jupiterâ€™s poles. Nature, 2018, 555, 216-219.	27.8	90

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91	Sulfur chemistry with time-varying oxygen abundance during Solar System formation. Icarus, 2005, 175, 1-14.	2.5	89
92	Composition of Titan's surface from Cassini VIMS. Planetary and Space Science, 2006, 54, 1524-1539.	1.7	89
93	Deciphering Spectral Fingerprints of Habitable Exoplanets. Astrobiology, 2010, 10, 89-102.	3.0	88
94	Shape, topography, gravity anomalies and tidal deformation of Titan. Icarus, 2014, 236, 169-177.	2.5	88
95	The effect of gas and grain opacity on the cooling of brown dwarfs. Astrophysical Journal, 1989, 338, 314.	4.5	88
96	Orbital migration and the frequency of giant planet formation. Astronomy and Astrophysics, 2002, 394, 241-251.	5.1	87
97	Resurfacing of Titan by ammonia-water cryomagma. Icarus, 2008, 196, 216-224.	2.5	86
98	Size and Shape of Saturn's Moon Titan. Science, 2009, 324, 921-923.	12.6	86
99	Saturnâ€™s icy satellites and rings investigated by Cassiniâ€“VIMS: III â€“ Radial compositional variability. Icarus, 2012, 220, 1064-1096.	2.5	86
100	Theoretical models of very low mass stars and brown dwarfs. Astrophysical Journal, 1989, 345, 939.	4.5	84
101	Does Titan have an ocean? A review of current understanding of Titan's surface. Reviews of Geophysics, 1993, 31, 133-149.	23.0	83
102	Nearâ€infrared spectral mapping of Titan's mountains and channels. Journal of Geophysical Research, 2007, 112, .	3.3	82
103	Evolution of Titan's rocky core constrained by Cassini observations. Geophysical Research Letters, 2010, 37, .	4.0	82
104	Cratering on Titan: impact melt, ejecta, and the fate of surface organics. Icarus, 2003, 164, 471-480.	2.5	80
105	The Formation and Evolution of Planetary Systems: Placing Our Solar System in Context withSpitzer. Publications of the Astronomical Society of the Pacific, 2006, 118, 1690-1710.	3.1	80
106	Rivers, Lakes, Dunes, and Rain: Crustal Processes in Titan's Methane Cycle. Annual Review of Earth and Planetary Sciences, 2009, 37, 299-320.	11.0	79
107	Tides on Europa, and the thickness of Europa's icy shell. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	78
108	TandEM: Titan and Enceladus mission. Experimental Astronomy, 2009, 23, 893-946.	3.7	77

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109	CARBON-RICH PLANET FORMATION IN A SOLAR COMPOSITION DISK. Astrophysical Journal, 2014, 785, 125.	4.5	77
110	Cassini RADAR observations of Enceladus, Tethys, Dione, Rhea, Iapetus, Hyperion, and Phoebe. Icarus, 2006, 183, 479-490.	2.5	76
111	DETERMINATION OF THE MINIMUM MASSES OF HEAVY ELEMENTS IN THE ENVELOPES OF JUPITER AND SATURN. Astrophysical Journal, 2009, 696, 1348-1354.	4.5	76
112	Numerical calculations of the longevity of impact oases on Titan. Icarus, 2005, 173, 243-253.	2.5	75
113	The Gas Chromatograph Mass Spectrometer for the Huygens Probe. Space Science Reviews, 2002, 104, 553-591.	8.1	74
114	Cassini SAR, radiometry, scatterometry and altimetry observations of Titanâ€™s dune fields. Icarus, 2011, 213, 608-624.	2.5	74
115	PROTOSOLAR AMMONIA AS THE UNIQUE SOURCE OF TITAN's NITROGEN. Astrophysical Journal Letters, 2014, 788, L24.	8.3	74
116	The Enceladus Orbilander Mission Concept: Balancing Return and Resources in the Search for Life. Planetary Science Journal, 2021, 2, 77.	3.6	74
117	High precision astrometry mission for the detection and characterization of nearby habitable planetary systems with the Nearby Earth Astrometric Telescope (NEAT). Experimental Astronomy, 2012, 34, 385-413.	3.7	73
118	Physical conditions on the early Earth. Philosophical Transactions of the Royal Society B: Biological Sciences, 2006, 361, 1721-1731.	4.0	72
119	Titan's young surface: Initial impact crater survey by Cassini RADAR and model comparison. Geophysical Research Letters, 2007, 34, .	4.0	72
120	PLANETESIMAL COMPOSITIONS IN EXOPLANET SYSTEMS. Astrophysical Journal, 2012, 757, 192.	4.5	72
121	The sustainability of habitability on terrestrial planets: Insights, questions, and needed measurements from Mars for understanding the evolution of Earthâ€like worlds. Journal of Geophysical Research E: Planets, 2016, 121, 1927-1961.	3.6	72
122	CLATHRATION OF VOLATILES IN THE SOLAR NEBULA AND IMPLICATIONS FOR THE ORIGIN OF TITAN'S ATMOSPHERE. Astrophysical Journal, 2009, 691, 1780-1786.	4.5	70
123	The Far Future of Exoplanet Direct Characterization. Astrobiology, 2010, 10, 121-126.	3.0	70
124	Are Debris Disks and Massive Planets Correlated?. Astrophysical Journal, 2007, 658, 1312-1321.	4.5	69
125	Saturn's Titan: Surface change, ammonia, and implications for atmospheric and tectonic activity. Icarus, 2009, 199, 429-441.	2.5	69
126	NEBULAR WATER DEPLETION AS THE CAUSE OF JUPITER'S LOW OXYGEN ABUNDANCE. Astrophysical Journal Letters, 2012, 751, L7.	8.3	68

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127	Coupled Atmosphere-Ocean Models of Titan's Past. Icarus, 1993, 102, 88-98.	2.5	67
128	The Formation and Evolution of Planetary Systems: First Results from a Spitzer Legacy Science Program. Astrophysical Journal, Supplement Series, 2004, 154, 422-427.	7.7	67
129	Organic environments on Saturnâ€™s moon, Titan: Simulating chemical reactions and analyzing products by FT-ICR and ion-trap mass spectrometry. Journal of the American Society for Mass Spectrometry, 2005, 16, 850-859.	2.8	67
130	Impact cratering on Titan II. Global melt, escaping ejecta, and aqueous alteration of surface organics. Icarus, 2005, 175, 522-533.	2.5	66
131	Active shoreline of Ontario Lacus, Titan: A morphological study of the lake and its surroundings. Geophysical Research Letters, 2010, 37, .	4.0	66
132	THE¹²C/¹³C RATIO ON TITAN FROMCASSINIINMS MEASUREMENTS AND IMPLICATIONS FOR THE EVOLUTION OF METHANE. Astrophysical Journal, 2012, 749, 160.	4.5	66
133	The formation and habitability of terrestrial planets in the presence of close-in giant planets. Icarus, 2005, 177, 256-263.	2.5	65
134	Titan's diverse landscapes as evidenced by Cassini RADAR's third and fourth looks at Titan. Icarus, 2008, 195, 415-433.	2.5	65
135	MWR: Microwave Radiometer for the Juno Mission to Jupiter. Space Science Reviews, 2017, 213, 139-185.	8.1	64
136	Isotopic evolution of the major constituents of Titan's atmosphere based on Cassini data. Planetary and Space Science, 2009, 57, 1917-1930.	1.7	63
137	THE MEASURED COMPOSITIONS OF URANUS AND NEPTUNE FROM THEIR FORMATION ON THE CO ICE LINE. Astrophysical Journal, 2014, 793, 9.	4.5	63
138	Origin and Evolution of Life on Terrestrial Planets. Astrobiology, 2010, 10, 69-76.	3.0	62
139	Volatile inventories in clathrate hydrates formed in the primordial nebula. Faraday Discussions, 2010, 147, 509.	3.2	62
140	Membrane alternatives in worlds without oxygen: Creation of an azotosome. Science Advances, 2015, 1, e1400067.	10.3	61
141	The Atmospheres of Uranus and Neptune. Annual Review of Astronomy and Astrophysics, 1993, 31, 217-263.	24.3	60
142	Moist convection and the abundance of water in the troposphere of Jupiter. Icarus, 1987, 69, 566-570.	2.5	59
143	A post-Cassini view of Titanâ€™s methane-based hydrologic cycle. Nature Geoscience, 2018, 11, 306-313.	12.9	59
144	Titan Aerosol Analogues: Analysis of the Nonvolatile Tholins. Astrobiology, 2003, 3, 719-726.	3.0	58

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145	Saturn at Last!. Scientific American, 2004, 290, 56-63.	1.0	58
146	Interpretation of the carbon abundance in Saturn measured by Cassini. Planetary and Space Science, 2008, 56, 1103-1111.	1.7	58
147	Low temperature hydrolysis of laboratory tholins in ammonia-water solutions: Implications for prebiotic chemistry on Titan. Icarus, 2009, 201, 412-421.	2.5	58
148	ORIGIN OF MOLECULAR OXYGEN IN COMET 67P/CHURYUMOVâ€“GERASIMENKO. Astrophysical Journal Letters, 2016, 823, L41.	8.3	58
149	Prediction of aeolian features on planets: Application to Titan paleoclimatology. Journal of Geophysical Research, 1995, 100, 26377.	3.3	57
150	Modeling ammoniaâ€“ammonium aqueous chemistries in the Solar Systemâ€™s icy bodies. Icarus, 2012, 220, 932-946.	2.5	56
151	A frozen super-Earth orbiting a star at the bottom of the main sequence. Astronomy and Astrophysics, 2012, 540, A78.	5.1	56
152	Cassini RADAR images at Hotei Arcus and western Xanadu, Titan: Evidence for geologically recent cryovolcanic activity. Geophysical Research Letters, 2009, 36, .	4.0	55
153	Origin of Water Ice in the Solar System. , 2006, , 309-320.		55
154	Microwave dielectric constant of Titanâ€relevant materials. Geophysical Research Letters, 2008, 35, .	4.0	54
155	Threshold of wave generation on Titanâ€™s lakes and seas: Effect of viscosity and implications for Cassini observations. Icarus, 2010, 207, 932-937.	2.5	54
156	Mountains on Titan: Modeling and observations. Journal of Geophysical Research, 2010, 115, .	3.3	54
157	Analytic investigation of climate stability on Titan: sensitivity to volatile inventory. Planetary and Space Science, 1999, 47, 1503-1515.	1.7	53
158	Comparative evolution of Jupiter and Saturn. Planetary and Space Science, 1999, 47, 1175-1182.	1.7	53
159	Geophysical evolution of Saturnâ€™s satellite Phoebe, a large planetesimal in the outer Solar System. Icarus, 2012, 219, 86-109.	2.5	53
160	Regional geomorphology and history of Titanâ€™s Xanadu province. Icarus, 2011, 211, 672-685.	2.5	52
161	Prevalent lightning sferics at 600 megahertz near Jupiterâ€™s poles. Nature, 2018, 558, 87-90.	27.8	52
162	Mapping of Titan: Results from the first Titan radar passes. Icarus, 2006, 185, 443-456.	2.5	49

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163	Bathymetry and absorptivity of Titan's Ontario Lacus. Journal of Geophysical Research, 2010, 115, .	3.3	49
164	Scientific rationale for Saturn×³s in situ exploration. Planetary and Space Science, 2014, 104, 29-47.	1.7	49
165	Laboratory measurements of cryogenic liquid alkane microwave absorptivity and implications for the composition of Ligeia Mare, Titan. Geophysical Research Letters, 2015, 42, 1340-1345.	4.0	48
166	POSSIBLE INTERNAL STRUCTURES AND COMPOSITIONS OF PROXIMA CENTAURI b. Astrophysical Journal Letters, 2016, 831, L16.	8.3	48
167	Titan's surface reviewed: the nature of bright and dark terrain. Planetary and Space Science, 1997, 45, 981-992.	1.7	47
168	Geophysical and Atmospheric Evolution of Habitable Planets. Astrobiology, 2010, 10, 45-68.	3.0	47
169	Titan's lakes chemical composition: Sources of uncertainties and variability. Planetary and Space Science, 2012, 61, 99-107.	1.7	47
170	Titan's Meteorology Over the Cassini Mission: Evidence for Extensive Subsurface Methane Reservoirs. Geophysical Research Letters, 2018, 45, 5320-5328.	4.0	47
171	Modeling the Infrared Emission from the HR 4796A Disk. Astrophysical Journal, 2003, 590, 368-378.	4.5	46
172	Origin and Formation of Planetary Systems. Astrobiology, 2010, 10, 19-32.	3.0	46
173	Measuring Jupiter's water abundance by Juno: the link between interior and formation models. Monthly Notices of the Royal Astronomical Society, 2014, 441, 2273-2279.	4.4	46
174	Geomorphologic mapping of titan's polar terrains: Constraining surface processes and landscape evolution. Icarus, 2017, 282, 214-236.	2.5	46
175	D to H ratio and the origin and evolution of Titan's atmosphere. Nature, 1986, 319, 388-390.	27.8	45
176	Co-Evolution of Atmospheres, Life, and Climate. Astrobiology, 2010, 10, 77-88.	3.0	45
177	Innocent Bystanders: Orbital Dynamics of Exomoons During Planetâ€“Planet Scattering. Astrophysical Journal, 2018, 852, 85.	4.5	45
178	Titan's surface before Cassini. Planetary and Space Science, 2005, 53, 557-576.	1.7	44
179	Rate Measurements of the Hydrolysis of Complex Organic Macromolecules in Cold Aqueous Solutions: Implications for Prebiotic Chemistry on the Early Earth and Titan. Astrobiology, 2008, 8, 273-287.	3.0	44
180	Composition, seasonal change, and bathymetry of Ligeia Mare, Titan, derived from its microwave thermal emission. Journal of Geophysical Research E: Planets, 2016, 121, 233-251.	3.6	44

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181	Gravity field and interior of Rhea from Cassini data analysis. Icarus, 2007, 190, 585-593.	2.5	43
182	Transient features in a Titan sea. Nature Geoscience, 2014, 7, 493-496.	12.9	43
183	A PROTOSOLAR NEBULA ORIGIN FOR THE ICES AGGLOMERATED BY COMET 67P/CHURYUMOVâ€“GERASIMENKO. Astrophysical Journal Letters, 2016, 819, L33.	8.3	43
184	Dynamical Habitability of Planetary Systems. Astrobiology, 2010, 10, 33-43.	3.0	42
185	Wind driven capillary-gravity waves on Titanâ€™s lakes: Hard to detect or non-existent?. Icarus, 2013, 225, 403-412.	2.5	42
186	Science Goals and Mission Architecture of the Europa Lander Mission Concept. Planetary Science Journal, 2022, 3, 22.	3.6	42
187	Modeling the disequilibrium species for Jupiter and Saturn: Implications for Juno and Saturn entry probe. Icarus, 2016, 276, 21-38.	2.5	41
188	Titan under a red giant sun: A new kind of â€œhabitableâ€•moon. Geophysical Research Letters, 1997, 24, 2905-2908.	4.0	40
189	Oxygen and Other Volatiles in the Giant Planets and their Satellites. Reviews in Mineralogy and Geochemistry, 2008, 68, 219-246.	4.8	40
190	Volatile Trapping in Martian Clathrates. Space Science Reviews, 2013, 174, 213-250.	8.1	39
191	Simulations of Titanâ€™s paleoclimate. Icarus, 2014, 243, 264-273.	2.5	39
192	Enceladus Life Finder: The search for life in a habitable Moon. , 2016, , .		39
193	Silicate interactions with ammonia-water fluids on early Titan. Journal of Geophysical Research, 1994, 99, 3745.	3.3	38
194	Titan's surface from Cassini RADAR SAR and high resolution radiometry data of the first five flybys. Icarus, 2007, 191, 211-222.	2.5	38
195	LAPLACE: A mission to Europa and the Jupiter System for ESAâ€™s Cosmic Vision Programme. Experimental Astronomy, 2009, 23, 849-892.	3.7	38
196	Photometric changes on Saturn's Titan: Evidence for active cryovolcanism. Geophysical Research Letters, 2009, 36, .	4.0	38
197	Identification of cryovolcanism on Titan using fuzzy cognitive maps. Planetary and Space Science, 2010, 58, 761-779.	1.7	38
198	ON THE VOLATILE ENRICHMENTS AND HEAVY ELEMENT CONTENT IN HD189733b. Astrophysical Journal, 2011, 727, 77.	4.5	38

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