

# Panayotis Lavvas

## List of Publications by Year in descending order

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79  
papers

4,267  
citations

101543

36  
h-index

110387

64  
g-index

81  
all docs

81  
docs citations

81  
times ranked

2879  
citing authors

#	ARTICLE	IF	CITATIONS
1	Negative ion chemistry in Titan's upper atmosphere. Planetary and Space Science, 2009, 57, 1558-1572.	1.7	240
2	The atmosphere of Pluto as observed by New Horizons. Science, 2016, 351, aad8866.	12.6	201
3	The escape of heavy atoms from the ionosphere of HD209458b. I. A photochemical–dynamical model of the thermosphere. Icarus, 2013, 226, 1678-1694.	2.5	196
4	An ultrahot gas-giant exoplanet with a stratosphere. Nature, 2017, 548, 58-61.	27.8	192
5	Titan trace gaseous composition from CIRS at the end of the Cassini–Huygens prime mission. Icarus, 2010, 207, 461-476.	2.5	161
6	AN ESTIMATE OF THE CHEMICAL COMPOSITION OF TITAN'S LAKES. Astrophysical Journal, 2009, 707, L128-L131.	4.5	131
7	<i>Hubble</i> PanCET: an extended upper atmosphere of neutral hydrogen around the warm Neptune GJ 3470b. Astronomy and Astrophysics, 2018, 620, A147.	5.1	128
8	Aerosol growth in Titan's ionosphere. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2729-2734.	7.1	126
9	Simulating the density of organic species in the atmosphere of Titan with a coupled ion-neutral photochemical model. Icarus, 2019, 324, 120-197.	2.5	125
10	The mesosphere and lower thermosphere of Titan revealed by Cassini/UVIS stellar occultations. Icarus, 2011, 216, 507-534.	2.5	124
11	Energy deposition and primary chemical products in Titan's upper atmosphere. Icarus, 2011, 213, 233-251.	2.5	121
12	CRITICAL REVIEW OF N, N <sup>+</sup> , N <sup>2+</sup> , N <sub>2</sub> <sup>+</sup> , N <sup>++</sup> , And N <sup>++</sup> <sub>2</sub> MAIN PRODUCTION PROCESSES AND REACTIONS OF RELEVANCE TO TITAN'S ATMOSPHERE. Astrophysical Journal, Supplement Series, 2013, 204, 20.	7.7	118
13	The Hubble Space Telescope PanCET Program: Exospheric Mg II and Fe II in the Near-ultraviolet Transmission Spectrum of WASP-121b Using Jitter Decorrelation. Astronomical Journal, 2019, 158, 91.	4.7	112
14	An Optical Transmission Spectrum for the Ultra-hot Jupiter WASP-121b Measured with the Hubble Space Telescope. Astronomical Journal, 2018, 156, 283.	4.7	106
15	CHARACTERIZING THE THERMOSPHERE OF HD209458b WITH UV TRANSIT OBSERVATIONS. Astrophysical Journal, 2010, 723, 116-128.	4.5	94
16	Structure and composition of Pluto's atmosphere from the New Horizons solar ultraviolet occultation. Icarus, 2018, 300, 174-199.	2.5	90
17	Detection of CO and HCN in Pluto's atmosphere with ALMA. Icarus, 2017, 286, 289-307.	2.5	89
18	The escape of heavy atoms from the ionosphere of HD209458b. II. Interpretation of the observations. Icarus, 2013, 226, 1695-1708.	2.5	87

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19	SURFACE CHEMISTRY AND PARTICLE SHAPE: PROCESSES FOR THE EVOLUTION OF AEROSOLS IN TITAN'S ATMOSPHERE. <i>Astrophysical Journal</i> , 2011, 728, 80.	4.5	84
20	Titan's vertical aerosol structure at the Huygens landing site: Constraints on particle size, density, charge, and refractive index. <i>Icarus</i> , 2010, 210, 832-842.	2.5	78
21	TandEM: Titan and Enceladus mission. <i>Experimental Astronomy</i> , 2009, 23, 893-946.	3.7	77
22	The detached haze layer in Titan's mesosphere. <i>Icarus</i> , 2009, 201, 626-633.	2.5	72
23	Haze in Pluto's atmosphere. <i>Icarus</i> , 2017, 290, 112-133.	2.5	72
24	Aerosol Properties of the Atmospheres of Extrasolar Giant Planets. <i>Astrophysical Journal</i> , 2017, 847, 32.	4.5	69
25	Formation of NH <sub>3</sub> and CH <sub>2</sub> NH in Titan's upper atmosphere. <i>Faraday Discussions</i> , 2010, 147, 31.	3.2	66
26	Condensation in Titan's atmosphere at the Huygens landing site. <i>Icarus</i> , 2011, 215, 732-750.	2.5	58
27	ELECTRON DENSITIES AND ALKALI ATOMS IN EXOPLANET ATMOSPHERES. <i>Astrophysical Journal</i> , 2014, 796, 15.	4.5	56
28	HST PanCET Program: A Cloudy Atmosphere for the Promising JWST Target WASP-101b. <i>Astrophysical Journal Letters</i> , 2017, 835, L12.	8.3	56
29	Hubble PanCET: an isothermal day-side atmosphere for the bloated gas-giant HAT-P-32Ab. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 474, 1705-1717.	4.4	55
30	RAPID ASSOCIATION REACTIONS AT LOW PRESSURE: IMPACT ON THE FORMATION OF HYDROCARBONS ON TITAN. <i>Astrophysical Journal</i> , 2012, 744, 11.	4.5	54
31	Composition and chemistry of Titan's thermosphere and ionosphere. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 729-741.	3.4	51
32	The evolution of Titan's detached haze layer near equinox in 2009. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	47
33	Titan's lakes chemical composition: Sources of uncertainties and variability. <i>Planetary and Space Science</i> , 2012, 61, 99-107.	1.7	47
34	EVOLUTION OF THE STRATOSPHERIC TEMPERATURE AND CHEMICAL COMPOSITION OVER ONE TITANIAN YEAR. <i>Astrophysical Journal</i> , 2013, 779, 177.	4.5	47
35	The formation of Charon's red poles from seasonally cold-trapped volatiles. <i>Nature</i> , 2016, 539, 65-68.	27.8	44
36	Seasonal Evolution of Titan's Stratosphere Near the Poles. <i>Astrophysical Journal Letters</i> , 2018, 854, L30.	8.3	43

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37	Cassini Imaging Science Subsystem observations of Titan's south polar cloud. <i>Icarus</i> , 2016, 270, 399-408.	2.5	39
38	3D simulations of photochemical hazes in the atmosphere of hot Jupiter HD 189733b. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 504, 2783-2799.	4.4	36
39	Photochemical Hazes in Sub-Neptunian Atmospheres with a Focus on GJ 1214b. <i>Astrophysical Journal</i> , 2019, 878, 118.	4.5	34
40	The Hubble PanCET program: an extensive search for metallic ions in the exosphere of GJ 436 b. <i>Astronomy and Astrophysics</i> , 2019, 629, A47.	5.1	34
41	Laboratory Studies of Molecular Growth in the Titan Ionosphere. <i>Journal of Physical Chemistry A</i> , 2009, 113, 11211-11220.	2.5	32
42	Thermal escape from extrasolar giant planets. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20130089.	3.4	31
43	Detection of Na, K, and H <sub>2</sub> O in the hazy atmosphere of WASP-6b. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 494, 5449-5472.	4.4	30
44	WASP-52b. The effect of star-spot correction on atmospheric retrievals. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 491, 5361-5375.	4.4	30
45	ELECTRODYNAMICS ON EXTRASOLAR GIANT PLANETS. <i>Astrophysical Journal</i> , 2014, 796, 16.	4.5	29
46	The Hubble Space Telescope PanCET Program: An Optical to Infrared Transmission Spectrum of HAT-P-32Ab. <i>Astronomical Journal</i> , 2020, 160, 51.	4.7	26
47	Signatures of strong magnetization and a metal-poor atmosphere for a Neptune-sized exoplanet. <i>Nature Astronomy</i> , 2022, 6, 141-153.	10.1	26
48	THERMAL AND CHEMICAL STRUCTURE VARIATIONS IN TITAN'S STRATOSPHERE DURING THE CASSINI MISSION. <i>Astrophysical Journal</i> , 2012, 760, 144.	4.5	25
49	Mass Loss by Atmospheric Escape from Extremely Close-in Planets. <i>Astrophysical Journal</i> , 2022, 929, 52.	4.5	24
50	Ionization balance in Titan's nightside ionosphere. <i>Icarus</i> , 2015, 248, 539-546.	2.5	22
51	Transmission Spectroscopy of WASP-79b from 0.6 to 5.0 $\mu$ m. <i>Astronomical Journal</i> , 2020, 159, 5.	4.7	22
52	Impact of photochemical hazes and gases on exoplanet atmospheric thermal structure. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 502, 5643-5657.	4.4	21
53	UV absorption by silicate cloud precursors in ultra-hot Jupiter WASP-178b. <i>Nature</i> , 2022, 604, 49-52.	27.8	21
54	Auroral electron precipitation and flux tube erosion in Titan's upper atmosphere. <i>Icarus</i> , 2013, 226, 186-204.	2.5	20

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55	A major ice component in Pluto's haze. <i>Nature Astronomy</i> , 2021, 5, 289-297.	10.1	19
56	Titan brighter at twilight than in daylight. <i>Nature Astronomy</i> , 2017, 1, .	10.1	17
57	ABOUT THE POSSIBLE ROLE OF HYDROCARBON LAKES IN THE ORIGIN OF TITAN'S NOBLE GAS ATMOSPHERIC DEPLETION. <i>Astrophysical Journal Letters</i> , 2010, 721, L117-L120.	8.3	16
58	The Hubble PanCET Program: A Metal-rich Atmosphere for the Inflated Hot Jupiter HAT-P-41b. <i>Astronomical Journal</i> , 2021, 161, 51.	4.7	16
59	ON THE POSSIBILITY OF SIGNIFICANT ELECTRON DEPLETION DUE TO NANOGRAIN CHARGING IN THE COMA OF COMET 67P/CHURYUMOV-GERASIMENKO NEAR PERIHELION. <i>Astrophysical Journal</i> , 2015, 798, 130.	4.5	15
60	N <sub>2</sub> state population in Titan's atmosphere. <i>Icarus</i> , 2015, 260, 29-59.	2.5	15
61	Titan's surface spectra at the Huygens landing site and Shangri-La. <i>Icarus</i> , 2016, 270, 291-306.	2.5	14
62	Titan's neutral atmosphere seasonal variations up to the end of the Cassini mission. <i>Icarus</i> , 2020, 344, 113413.	2.5	14
63	Heavy negative ion growth in Titan's polar winter. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 490, 2254-2261.	4.4	13
64	Titan's haze. , 2014, , 285-321.		11
65	INCREASING POSITIVE ION NUMBER DENSITIES BELOW THE PEAK OF ION-ELECTRON PAIR PRODUCTION IN TITAN'S IONOSPHERE. <i>Astrophysical Journal</i> , 2014, 786, 69.	4.5	9
66	Aerosols optical properties in Titan's detached haze layer before the equinox. <i>Icarus</i> , 2017, 292, 13-21.	2.5	9
67	Pluto's atmosphere observations with ALMA: Spatially-resolved maps of CO and HCN emission and first detection of HNC. <i>Icarus</i> , 2022, 372, 114722.	2.5	9
68	SUPRATHERMAL ELECTRONS IN TITAN'S SUNLIT IONOSPHERE: MODEL-OBSERVATION COMPARISONS. <i>Astrophysical Journal</i> , 2016, 826, 131.	4.5	8
69	The Hubble PanCET program: long-term chromospheric evolution and flaring activity of the M dwarf host GJ 3470. <i>Astronomy and Astrophysics</i> , 2021, 650, A73.	5.1	8
70	HST PanCET program: non-detection of atmospheric escape in the warm Saturn-sized planet WASP-29 b. <i>Astronomy and Astrophysics</i> , 2021, 649, A40.	5.1	7
71	Titan's emission processes during eclipse. <i>Icarus</i> , 2014, 241, 397-408.	2.5	6
72	A large range of haziness conditions in hot-Jupiter atmospheres. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 515, 4753-4779.	4.4	6

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73	Heavy Positive Ion Groups in Titan's Ionosphere from Cassini Plasma Spectrometer IBS Observations. Planetary Science Journal, 2021, 2, 26.	3.6	5
74	Science goals and new mission concepts for future exploration of Titan's atmosphere, geology and habitability: titan POLar scout/orbitEr and in situ lake lander and DrONE explorer (POSEIDON). Experimental Astronomy, 2022, 54, 911-973.	3.7	5
75	The near-LIV transit of HD 189733b with the XMM-Newton optical monitor. Monthly Notices of the Royal Astronomical Society, 2021, 506, 2453-2458.	4.4	3
76	Propane clusters in Titan's lower atmosphere: insights from a combined theory/laboratory study. Monthly Notices of the Royal Astronomical Society, 2019, 488, 676-684.	4.4	2
77	Upper Atmospheres and Ionospheres of Planets and Satellites. , 2018, , 349-374.		1
78	Upper Atmospheres and Ionospheres of Planets and Satellites. , 2017, , 1-26.		0
79	Kinetics and Branching for the Reactions of $N_2^+$ with $C_3H_4$ Isomers at Low Temperatures and Implications for Titan's Atmosphere. ACS Earth and Space Chemistry, 2022, 6, 1227-1238.	2.7	0