Panayotis Lavvas

List of Publications by Year
in descending order

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	Plutoâ€™s atmosphere observations with ALMA: Spatially-resolved maps of CO and HCN emission and first detection of HNC. Icarus, 2022, 372, 114722.	2.5	9
2	Science goals and new mission concepts for future exploration of Titanâ€™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
3	Kinetics and Branching for the Reactions of N₂⁺ with C₃H₄ Isomers at Low Temperatures and Implications for Titanâ€™s Atmosphere. ACS Earth and Space Chemistry, 2022, 6, 1227-1238.	2.7	0
4	UV absorption by silicate cloud precursors in ultra-hot Jupiter WASP-178b. Nature, 2022, 604, 49-52.	27.8	21
5	Signatures of strong magnetization and a metal-poor atmosphere for a Neptune-sized exoplanet. Nature Astronomy, 2022, 6, 141-153.	10.1	26
6	Mass Loss by Atmospheric Escape from Extremely Close-in Planets. Astrophysical Journal, 2022, 929, 52.	4.5	24
7	A large range of haziness conditions in hot-Jupiter atmospheres. Monthly Notices of the Royal Astronomical Society, 2022, 515, 4753-4779.	4.4	6
8	A major ice component in Plutoâ€™s haze. Nature Astronomy, 2021, 5, 289-297.	10.1	19
9	Heavy Positive Ion Groups in Titanâ€™s Ionosphere from Cassini Plasma Spectrometer IBS Observations. Planetary Science Journal, 2021, 2, 26.	3.6	5
10	Impact of photochemical hazes and gases on exoplanet atmospheric thermal structure. Monthly Notices of the Royal Astronomical Society, 2021, 502, 5643-5657.	4.4	21
11	3D simulations of photochemical hazes in the atmosphere of hot Jupiter HDÂ189733b. Monthly Notices of the Royal Astronomical Society, 2021, 504, 2783-2799.	4.4	36
12	HST PanCET program: non-detection of atmospheric escape in the warm Saturn-sized planet WASP-29 b. Astronomy and Astrophysics, 2021, 649, A40.	5.1	7
13	The Hubble PanCET program: long-term chromospheric evolution and flaring activity of the M dwarf host GJ 3470. Astronomy and Astrophysics, 2021, 650, A73.	5.1	8
14	The near-UV transit of HDâ€‰189733b with the XMMâ€“Newton optical monitor. Monthly Notices of the Royal Astronomical Society, 2021, 506, 2453-2458.	4.4	3
15	The Hubble PanCET Program: A Metal-rich Atmosphere for the Inflated Hot Jupiter HAT-P-41b. Astronomical Journal, 2021, 161, 51.	4.7	16
16	Titan's neutral atmosphere seasonal variations up to the end of the Cassini mission. Icarus, 2020, 344, 113413.	2.5	14
17	Transmission Spectroscopy of WASP-79b from 0.6 to 5.0 Î¼m. Astronomical Journal, 2020, 159, 5.	4.7	22
18	Detection of Na, K, and H2O in the hazy atmosphere of WASP-6b. Monthly Notices of the Royal Astronomical Society, 2020, 494, 5449-5472.	4.4	30

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19	WASP-52b. The effect of star-spot correction on atmospheric retrievals. Monthly Notices of the Royal Astronomical Society, 2020, 491, 5361-5375.	4.4	30
20	The Hubble Space Telescope PanCET Program: An Optical to Infrared Transmission Spectrum of HAT-P-32Ab. Astronomical Journal, 2020, 160, 51.	4.7	26
21	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
22	Propane clusters in Titanâ€™s lower atmosphere: insights from a combined theory/laboratory study. Monthly Notices of the Royal Astronomical Society, 2019, 488, 676-684.	4.4	2
23	Heavy negative ion growth in Titanâ€™s polar winter. Monthly Notices of the Royal Astronomical Society, 2019, 490, 2254-2261.	4.4	13
24	Photochemical Hazes in Sub-Neptunian Atmospheres with a Focus on GJ 1214b. Astrophysical Journal, 2019, 878, 118.	4.5	34
25	The Hubble PanCET program: an extensive search for metallic ions in the exosphere of GJ 436 b. Astronomy and Astrophysics, 2019, 629, A47.	5.1	34
26	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
27	Seasonal Evolution of Titan's Stratosphere Near the Poles. Astrophysical Journal Letters, 2018, 854, L30.	8.3	43
28	Structure and composition of Pluto's atmosphere from the New Horizons solar ultraviolet occultation. Icarus, 2018, 300, 174-199.	2.5	90
29	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
30	Hubble PanCET: an extended upper atmosphere of neutral hydrogen around the warm Neptune GJ 3470b. Astronomy and Astrophysics, 2018, 620, A147.	5.1	128
31	Upper Atmospheres and Ionospheres of Planets and Satellites. , 2018, , 349-374.		1
32	Hubble PanCET: an isothermal day-side atmosphere for the bloated gas-giant HAT-P-32Ab. Monthly Notices of the Royal Astronomical Society, 2018, 474, 1705-1717.	4.4	55
33	Haze in Pluto's atmosphere. Icarus, 2017, 290, 112-133.	2.5	72
34	Titan brighter at twilight than in daylight. Nature Astronomy, 2017, 1, .	10.1	17
35	Aerosols optical properties in Titanâ€™s detached haze layer before the equinox. Icarus, 2017, 292, 13-21.	2.5	9
36	Detection of CO and HCN in Plutoâ€™s atmosphere with ALMA. Icarus, 2017, 286, 289-307.	2.5	89

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37	An ultrahot gas-giant exoplanet with a stratosphere. Nature, 2017, 548, 58-61.	27.8	192
38	HST PanCET Program: A Cloudy Atmosphere for the Promising JWST Target WASP-101b. Astrophysical Journal Letters, 2017, 835, L12.	8.3	56
39	Aerosol Properties of the Atmospheres of Extrasolar Giant Planets. Astrophysical Journal, 2017, 847, 32.	4.5	69
40	Upper Atmospheres and Ionospheres of Planets and Satellites. , 2017, , 1-26.		0
41	SUPRATHERMAL ELECTRONS IN TITANâ€™S SUNLIT IONOSPHERE: MODELâ€“OBSERVATION COMPARISONS. Astrophysical Journal, 2016, 826, 131.	4.5	8
42	The formation of Charonâ€™s red poles from seasonally cold-trapped volatiles. Nature, 2016, 539, 65-68.	27.8	44
43	Titanâ€™s surface spectra at the Huygens landing site and Shangri-La. Icarus, 2016, 270, 291-306.	2.5	14
44	The atmosphere of Pluto as observed by New Horizons. Science, 2016, 351, aad8866.	12.6	201
45	Cassini Imaging Science Subsystem observations of Titanâ€™s south polar cloud. Icarus, 2016, 270, 399-408.	2.5	39
46	ON THE POSSIBILITY OF SIGNIFICANT ELECTRON DEPLETION DUE TO NANOGRAIN CHARGING IN THE COMA OF COMET 67P/CHURYUMOV-GERASIMENKO NEAR PERIHELION. Astrophysical Journal, 2015, 798, 130.	4.5	15
47	N2 state population in Titanâ€™s atmosphere. Icarus, 2015, 260, 29-59.	2.5	15
48	Ionization balance in Titanâ€™s nightside ionosphere. Icarus, 2015, 248, 539-546.	2.5	22
49	Titan's haze. , 2014, , 285-321.		11
50	Titanâ€™s emission processes during eclipse. Icarus, 2014, 241, 397-408.	2.5	6
51	ELECTRODYNAMICS ON EXTRASOLAR GIANT PLANETS. Astrophysical Journal, 2014, 796, 16.	4.5	29
52	INCREASING POSITIVE ION NUMBER DENSITIES BELOW THE PEAK OF ION-ELECTRON PAIR PRODUCTION IN TITAN'S IONOSPHERE. Astrophysical Journal, 2014, 786, 69.	4.5	9
53	ELECTRON DENSITIES AND ALKALI ATOMS IN EXOPLANET ATMOSPHERES. Astrophysical Journal, 2014, 796, 15.	4.5	56
54	Thermal escape from extrasolar giant planets. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130089.	3.4	31

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55	The escape of heavy atoms from the ionosphere of HD209458b. I. A photochemicalâ€“dynamical model of the thermosphere. Icarus, 2013, 226, 1678-1694.	2.5	196
56	Auroral electron precipitation and flux tube erosion in Titanâ€™s upper atmosphere. Icarus, 2013, 226, 186-204.	2.5	20
57	The escape of heavy atoms from the ionosphere of HD209458b. II. Interpretation of the observations. Icarus, 2013, 226, 1695-1708.	2.5	87
58	Aerosol growth in Titanâ€™s ionosphere. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2729-2734.	7.1	126
59	CRITICAL REVIEW OF N, N ⁺ , N ⁺ ₂ , N ⁺⁺ , And N ⁺⁺ ₂ MAIN PRODUCTION PROCESSES AND REACTIONS OF RELEVANCE TO TITAN'S ATMOSPHERE. Astrophysical Journal, Supplement Series, 2013, 204, 20.	7.7	118
60	EVOLUTION OF THE STRATOSPHERIC TEMPERATURE AND CHEMICAL COMPOSITION OVER ONE TITANIAN YEAR. Astrophysical Journal, 2013, 779, 177.	4.5	47
61	RAPID ASSOCIATION REACTIONS AT LOW PRESSURE: IMPACT ON THE FORMATION OF HYDROCARBONS ON TITAN. Astrophysical Journal, 2012, 744, 11.	4.5	54
62	THERMAL AND CHEMICAL STRUCTURE VARIATIONS IN TITAN'S STRATOSPHERE DURING THECASSINIMISSION. Astrophysical Journal, 2012, 760, 144.	4.5	25
63	Titan's lakes chemical composition: Sources of uncertainties and variability. Planetary and Space Science, 2012, 61, 99-107.	1.7	47
64	The evolution of Titan's detached haze layer near equinox in 2009. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	47
65	SURFACE CHEMISTRY AND PARTICLE SHAPE: PROCESSES FOR THE EVOLUTION OF AEROSOLS IN TITAN's ATMOSPHERE. Astrophysical Journal, 2011, 728, 80.	4.5	84
66	Condensation in Titanâ€™s atmosphere at the Huygens landing site. Icarus, 2011, 215, 732-750.	2.5	58
67	The mesosphere and lower thermosphere of Titan revealed by Cassini/UVIS stellar occultations. Icarus, 2011, 216, 507-534.	2.5	124
68	Energy deposition and primary chemical products in Titanâ€™s upper atmosphere. Icarus, 2011, 213, 233-251.	2.5	121
69	ABOUT THE POSSIBLE ROLE OF HYDROCARBON LAKES IN THE ORIGIN OF TITAN'S NOBLE GAS ATMOSPHERIC DEPLETION. Astrophysical Journal Letters, 2010, 721, L117-L120.	8.3	16
70	CHARACTERIZING THE THERMOSPHERE OF HD209458b WITH UV TRANSIT OBSERVATIONS. Astrophysical Journal, 2010, 723, 116-128.	4.5	94
71	Titan trace gaseous composition from CIRS at the end of the Cassiniâ€“Huygens prime mission. Icarus, 2010, 207, 461-476.	2.5	161
72	Titanâ€™s vertical aerosol structure at the Huygens landing site: Constraints on particle size, density, charge, and refractive index. Icarus, 2010, 210, 832-842.	2.5	78

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73	Formation of NH3 and CH2NH in Titan's upper atmosphere. Faraday Discussions, 2010, 147, 31.	3.2	66
74	TandEM: Titan and Enceladus mission. Experimental Astronomy, 2009, 23, 893-946.	3.7	77
75	The detached haze layer in Titan's mesosphere. Icarus, 2009, 201, 626-633.	2.5	72
76	Negative ion chemistry in Titan's upper atmosphere. Planetary and Space Science, 2009, 57, 1558-1572.	1.7	240
77	Laboratory Studies of Molecular Growth in the Titan Ionosphere. Journal of Physical Chemistry A, 2009, 113, 11211-11220.	2.5	32
78	AN ESTIMATE OF THE CHEMICAL COMPOSITION OF TITAN's LAKES. Astrophysical Journal, 2009, 707, L128-L131.	4.5	131
79	Composition and chemistry of Titan's thermosphere and ionosphere. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 729-741.	3.4	51