Cesare Cecchi-Pestellini

List of Publications by Year
in descending order

101 papers	1,628 citations	304743 22 h-index	377865 34 g-index
101 all docs	101 docs citations	101 times ranked	1418 citing authors

#	Article	IF	Citations
1	Cosmic ray induced photons in dense interstellar clouds. Monthly Notices of the Royal Astronomical Society, 1992, 258, 125-133.	4.4	85
2	The far-ultraviolet signature of the â€˜missingâ€™ baryons in the Local Group of galaxies. Nature, 2003, 421, 719-721.	27.8	82
3	Mass loss from â€œHot Jupitersâ€â€”Implications for CoRoT discoveries, Part II: Long time thermal atmospheric evaporation modeling. Planetary and Space Science, 2008, 56, 1260-1272.	1.7	80
4	The role of the charge state of PAHs in ultraviolet extinction. Astronomy and Astrophysics, 2008, 486, L25-L29.	5.1	54
5	SOFT X-RAY IRRADIATION OF METHANOL ICE: FORMATION OF PRODUCTS AS A FUNCTION OF PHOTON ENERGY. Astrophysical Journal, 2013, 778, 162.	4.5	51
6	Rotational and Vibrational Excitation of CO Molecules by Collisions with4He Atoms. Astrophysical Journal, 2002, 571, 1015-1020.	4.5	47
7	The relative role of EUV radiation and X-rays in the heating ofÂhydrogen-rich exoplanet atmospheres. Astronomy and Astrophysics, 2009, 496, 863-868.	5.1	46
8	Dehydrogenated polycyclic aromatic hydrocarbons and UV bump. Astronomy and Astrophysics, 2008, 489, 1183-1187.	5.1	44
9	Beyond Mie Theory: The Transition Matrix Approach in Interstellar Dust Modeling. Astrophysical Journal, 2001, 559, 993-1004.	4.5	37
10	Episodic explosions in interstellar ices. Monthly Notices of the Royal Astronomical Society, 2013, 430, 264-273.	4.4	35
11	Stellar X-ray heating of planet atmospheres. Astronomy and Astrophysics, 2006, 458, L13-L16.	5.1	35
12	Emission of HeH(+) in nebulae. Astrophysical Journal, 1993, 413, 611.	4.5	35
13	MARC: A code for the retrieval of atmospheric parameters from millimeter-wave limb measurements. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 105, 476-491.	2.3	33
14	SOFT X-RAY IRRADIATION OF H₂S ICE AND THE PRESENCE OF S₂IN COMETS. Astrophysical Journal Letters, 2012, 751, L40.	8.3	33
15	Optical Properties of Composite Interstellar Grains: A Morphological Analysis. Astrophysical Journal, 2004, 615, 286-299.	4.5	32
16	H3+ in diffuse interstellar gas. Monthly Notices of the Royal Astronomical Society, 2000, 313, L6-L8.	4.4	30
17	Radiation pressure cross-sections of fluffy interstellar grains. Monthly Notices of the Royal Astronomical Society, 2003, 341, 1239-1245.	4.4	28
18	MODELING GALACTIC EXTINCTION WITH DUST AND â€œREALâ€•POLYCYCLIC AROMATIC HYDROCARBONS. Astrophysical Journal, Supplement Series, 2013, 207, 7.	7.7	28

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19	Stratified dust grains in the interstellar medium - I. An accurate computational method for calculating their optical properties. Monthly Notices of the Royal Astronomical Society, 0, 384, 591-598.	4.4	27
20	Stratified dust grains in the interstellar medium - II. Time-dependent interstellar extinction. Monthly Notices of the Royal Astronomical Society, 0, 408, 535-541.	4.4	26
21	X-RAY IRRADIATION OF H₂O + CO ICE MIXTURES WITH SYNCHROTRON LIGHT. Astrophysical Journal, 2016, 820, 25.	4.5	24
22	Synthesis of Complex Organic Molecules in Soft X-Ray Irradiated Ices. Astrophysical Journal, 2019, 879, 21.	4.5	24
23	H 2 Oâ€H 2 O Collision Rate Coefficients. Astrophysical Journal, Supplement Series, 2000, 128, 597-601.	7.7	23
24	Porous interstellar grains. Monthly Notices of the Royal Astronomical Society, 2001, 322, 749-756.	4.4	23
25	C2absorption-line diagnostics of diffuse interstellar clouds. Monthly Notices of the Royal Astronomical Society, 2002, 331, L31-L34.	4.4	23
26	Hydrated sulphuric acid in dense molecular clouds. Monthly Notices of the Royal Astronomical Society, 2003, 341, 657-661.	4.4	23
27	SOFT X-RAY IRRADIATION OF PURE CARBON MONOXIDE INTERSTELLAR ICE ANALOGUES. Astrophysical Journal Letters, 2012, 746, L1.	8.3	23
28	Role of clays in protecting adsorbed DNA against X-ray radiation. International Journal of Astrobiology, 2004, 3, 31-35.	1.6	22
29	The GAPS Programme at TNG. Astronomy and Astrophysics, 2022, 658, A136.	5.1	20
30	A radical route to interstellar propylene formation. Monthly Notices of the Royal Astronomical Society: Letters, 2013, 436, L59-L63.	3.3	19
31	X-ray versus Ultraviolet Irradiation of Astrophysical Ice Analogs Leading to Formation of Complex Organic Molecules. ACS Earth and Space Chemistry, 2019, 3, 2138-2157.	2.7	19
32	FORMATION PUMPING OF MOLECULAR HYDROGEN IN DARK CLOUDS. Astrophysical Journal, 2010, 725, 1111-1123.	4.5	18
33	SOFT X-RAY IRRADIATION OF METHANOL ICE: IMPLICATION FOR H ₂ CO FORMATION IN INTERSTELLAR REGIONS. Astrophysical Journal Letters, 2010, 722, L45-L48.	8.3	18
34	Evolving interstellar extinction. Monthly Notices of the Royal Astronomical Society, 1998, 296, 414-418.	4.4	17
35	CHEMICAL EVOLUTION OF A CO ICE INDUCED BY SOFT X-RAYS. Astrophysical Journal, 2016, 819, 38.	4.5	17
36	Dust Motions in Magnetized Turbulence: Source of Chemical Complexity. Astrophysical Journal Letters, 2018, 866, L23.	8.3	17

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37	Detection of HCO+ towards Cygnus OB2 No. 12. Monthly Notices of the Royal Astronomical Society, 2000, 317, L6-L10.	4.4	16
38	Photo-evaporation of close-in gas giants orbiting around G and M stars. Astronomy and Astrophysics, 2019, 624, A101.	5.1	16
39	X-ray processing of a realistic ice mantle can explain the gas abundances in protoplanetary disks. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16149-16153.	7.1	16
40	Dust Extinction in a Small Molecular Cloud. Astrophysical Journal, 2001, 558, 717-729.	4.5	16
41	X-Ray Photo-desorption of H₂O:CO:NH₃ Circumstellar Ice Analogs: Gas-phase Enrichment. Astrophysical Journal, 2018, 868, 73.	4.5	15
42	Large prebiotic molecules in space: photophysics of acetic acid and its isomers. Monthly Notices of the Royal Astronomical Society, 2010, 402, 1667-1674.	4.4	14
43	Chemical Evolution of Interstellar Methanol Ice Analogs upon Ultraviolet Irradiation: The Role of the Substrate. Astrophysical Journal, 2018, 858, 35.	4.5	14
44	The discovery of clumpy structure in the diffuse gas towards Cyg OB2 No. 12. Monthly Notices of the Royal Astronomical Society, 2002, 337, 495-498.	4.4	13
45	H2 excitation in turbulent interstellar clouds. Monthly Notices of the Royal Astronomical Society, 2005, 364, 1309-1314.	4.4	13
46	Mapping UV radiation in dark clouds. Monthly Notices of the Royal Astronomical Society, 1995, 274, 134-146.	4.4	11
47	EXCITATION OF C₂IN DIFFUSE INTERSTELLAR CLOUDS. Astrophysical Journal, 2012, 749, 48.	4.5	11
48	Effects of 150â€“1000 eV Electron Impacts on Pure Carbon Monoxide Ices Using the Interstellar Energetic-Process System (IEPS). Astrophysical Journal, 2020, 889, 57.	4.5	11
49	R V-dependent Interstellar Photodestruction Rates. Astrophysical Journal, Supplement Series, 1995, 100, 187.	7.7	11
50	Millimeterâ€Wave Observations of Molecular Lines toward Bok Globules and Herbig Ae/Be Stars. Astrophysical Journal, 1998, 504, 866-873.	4.5	11
51	On the formation and survival of complex prebiotic molecules in interstellar grain aggregates. International Journal of Astrobiology, 2004, 3, 287-293.	1.6	10
52	Ultraviolet Radiation inside Interstellar Grain Aggregates. I. The Density of Radiation. Astrophysical Journal, 2005, 624, 223-231.	4.5	10
53	The diffuse clouds towards Cyg OB2 No. 5 and No. 12. Monthly Notices of the Royal Astronomical Society, 2005, 359, 73-78.	4.4	10
54	CHEMISTRY IN EVAPORATING ICESâ€”UNEXPLORED TERRITORY. Astrophysical Journal, 2010, 725, 1581-1586.	4.5	10

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55	The formation of glycine and other complex organic molecules in exploding ice mantles. Faraday Discussions, 2014, 168, 369-388.	3.2	10
56	Radiative transfer in a stochastic universe. New Astronomy, 2001, 6, 151-163.	1.8	9
57	Retrieval of minor constituents in a cloudy atmosphere with remote-sensing millimetre-wave measurements. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 163-170.	2.7	9
58	CHEMISTRY IN DIFFUSE CLOUDS WITH TRANSIENT MICROSTRUCTURE. Astrophysical Journal, 2009, 706, 1429-1432.	4.5	9
59	OBSERVATIONAL EVIDENCE OF DUST EVOLUTION IN GALACTIC EXTINCTION CURVES. Astrophysical Journal, 2014, 785, 41.	4.5	9
60	SOFT X-RAY IRRADIATION OF SILICATES: IMPLICATIONS FORÂDUST EVOLUTION IN PROTOPLANETARY DISKS. Astrophysical Journal, 2016, 828, 29.	4.5	9
61	RÃ¶ntgen spheres around active stars. Monthly Notices of the Royal Astronomical Society, 2018, 473, 447-456.	4.4	9
62	HOT HYDROGEN IN DIFFUSE CLOUDS. Astrophysical Journal, 2012, 755, 119.	4.5	8
63	Extreme-ultraviolet- and X-Ray-driven Photochemistry of Gaseous Exoplanets. Planetary Science Journal, 2022, 3, 1.	3.6	8
64	The Structure of the Small Dark Cloud CB 107. Astrophysical Journal, 2004, 616, 319-330.	4.5	7
65	The nature of interstellar dust as revealed by light scattering. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 2310-2320.	2.3	7
66	Redshifted diffuse interstellar bands in the Orion OB1 association. Monthly Notices of the Royal Astronomical Society, 2015, 451, 3210-3218.	4.4	7
67	Modelling the CO emission in southern Bok globules. Monthly Notices of the Royal Astronomical Society, 2001, 326, 1255-1260.	4.4	6
68	Optical properties of interstellar grain aggregates. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 89, 43-51.	2.3	6
69	Ultraviolet Radiation inside Interstellar Grain Aggregates. II. Field Depolarization. Astrophysical Journal, 2005, 633, 953-966.	4.5	6
70	Atomistic simulations of the free-energy landscapes of interstellar chemical reactions: the case of methyl isocyanate. Monthly Notices of the Royal Astronomical Society, 2021, 504, 1565-1570.	4.4	6
71	Detection of CS emission towards CygnusÂOB2ÂNo.Â12. Astronomy and Astrophysics, 2007, 466, 243-246.	5.1	6
72	Dust-induced chemical differentiation in dense regions. Monthly Notices of the Royal Astronomical Society, 2001, 325, 826-834.	4.4	5

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73	ULTRAVIOLET RADIATION INSIDE INTERSTELLAR GRAIN AGGREGATES. III. FLUFFY GRAINS. Astrophysical Journal, 2009, 701, 1426-1435.	4.5	5
74	Modelling peculiar extinction curves. Monthly Notices of the Royal Astronomical Society, 2010, , no-no.	4.4	5
75	Optical tweezers in a dusty universe. European Physical Journal Plus, 2021, 136, 1.	2.6	5
76	X-Ray-induced Diffusion and Mixing in Layered Astrophysical Ices. Astrophysical Journal, 2022, 926, 176.	4.5	5
77	Radiative transfer in the stochastic interstellar medium. Transport Theory and Statistical Physics, 1999, 28, 199-228.	0.4	4
78	On the polarization and depolarization of the electromagnetic waves. Journal of Physics: Conference Series, 2005, 6, 59-72.	0.4	4
79	Stratified dust grains in the interstellar medium. III. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1898-1906.	2.3	4
80	EXTRAGALACTIC INTERSTELLAR EXTINCTION CURVES: INDICATORS OF LOCAL PHYSICAL CONDITIONS. Astrophysical Journal, 2014, 788, 100.	4.5	4
81	A solution to the problem of radiation transfer in inhomogeneous media using the SHM. Journal of Quantitative Spectroscopy and Radiative Transfer, 1992, 47, 95-102.	2.3	3
82	Mathematical methods for photon transport in random media. Journal of Quantitative Spectroscopy and Radiative Transfer, 2000, 65, 835-851.	2.3	3
83	Retrieving physical conditions from interstellar H2emission lines: a non linear fitting technique. Journal of Physics: Conference Series, 2005, 6, 191-196.	0.4	3
84	A new Bok globule towards Cygnus OB2 No. 12. Monthly Notices of the Royal Astronomical Society, 2010, 407, 1255-1258.	4.4	3
85	The regulatory role of Rv in the photochemistry of dark clouds. Planetary and Space Science, 1995, 43, 1319-1323.	1.7	2
86	A kinetic model for dust coagulation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2001, 70, 1-9.	2.3	2
87	Radiative transfer in a stochastic universe. New Astronomy, 2001, 6, 165-172.	1.8	2
88	Aggregation of interstellar dust grains: effects on optical properties and dynamical behaviour. Journal of Physics: Conference Series, 2005, 6, 149-154.	0.4	2
89	Light within small particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 100, 157-164.	2.3	2
90	Polycyclic Aromatic Hydrocarbons and the Extinction Curve. EAS Publications Series, 2011, 46, 327-340.	0.3	2

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91	MODELING DUST IN THE MAGELLANIC CLOUDS. Astrophysical Journal, 2015, 810, 70.	4.5	2
92	A systematic study of CO2 planetary atmospheres and their link to the stellar environment. Monthly Notices of the Royal Astronomical Society, 2020, 496, 5350-5359.	4.4	2
93	The young hard active Sun: soft X-ray irradiation of tryptophan in water solutions. International Journal of Astrobiology, 2011, 10, 67-75.	1.6	1
94	Planet interactions at a young age. Astronomische Nachrichten, 2022, 343, .	1.2	1
95	Chemistry in Space. Il Nuovo Cimento Della SocietÃ Italiana Di Fisica C, 1992, 15, 1047-1069.	0.2	0
96	Radiative transfer modelling in protoplanetary disks with the Pâ€N Approximation and Monte Carlo techniques. Mathematical Methods in the Applied Sciences, 2010, 33, 1263-1273.	2.3	0
97	THE CHEMICAL AGE OF THE BOK GLOBULE CB238. Astronomical Journal, 2011, 142, 70.	4.7	0
98	Modeling Galactic Extinction with dust and "real" PAHs. Journal of Physics: Conference Series, 2013, 470, 012009.	0.4	0
99	Preparing EChO space mission: laboratory simulation of planetary atmospheres. , 2014, , .		0
100	MODELING EXTRAGALACTIC EXTINCTION THROUGH GAMMA-RAY BURST AFTERGLOWS. Astrophysical Journal, 2016, 829, 22.	4.5	0
101	Organics on the Rocks: A Cosmic Origin for the Seeds of Life. Springer Proceedings in Physics, 2021, , 27-34.	0.2	0