

# Christian Iliadis

## List of Publications by Year in descending order

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119  
papers

4,743  
citations

76196

40  
h-index

106150

65  
g-index

135  
all docs

135  
docs citations

135  
times ranked

2718  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermonuclear reaction rate of $\text{Mg}^{25}(p,\alpha)\text{Si}^{29}$ reaction and its influence on the MgAl cycle in astrophysical environments. Physical Review C, 2022, 105, .	1.1	4
2	Hydrogen Burning of $^{29}\text{Si}$ and Its Impact on Presolar Stardust Grains from Classical Novae. Astrophysical Journal, 2022, 928, 128.	1.6	0
3	Investigation of $\text{Si}^{29}(p,\alpha)\text{Mg}^{25}$ reaction rate. Physical Review C, 2022, 105, .	1.1	1
4	Calculation of resonance energies from $Q$ values. Physical Review C, 2019, 99, .	1.1	3
5	Linear polarization direction correlations in $\gamma$ -ray scattering experiments. European Physical Journal A, 2021, 57, 1.	1.0	6
6	Bayesian Estimation of the $D(p,\alpha)\text{He}^3$ Thermonuclear Reaction Rate. Astrophysical Journal, 2021, 923, 49.	1.6	8
7	Thermonuclear reaction rate of $\text{Si}^{30}(p,\alpha)\text{P}^{31}$ . Physical Review C, 2020, 102, .	1.1	5
8	Carbon Oxygen Classical Novae Are Galactic $^7\text{Li}$ Producers as well as Potential Supernova Ia Progenitors. Astrophysical Journal, 2020, 895, 70.	1.6	59
9	Hierarchical Bayesian Thermonuclear Rate for the $^7\text{Be}(n,p)^7\text{Li}$ Big Bang Nucleosynthesis Reaction. Astrophysical Journal, 2020, 894, 134.	1.6	8
10	Thermonuclear Reaction Rates and Primordial Nucleosynthesis. Astrophysical Journal, 2020, 901, 127.	1.6	19
11	Calculation of resonance energies from $Q$ values. Physical Review C, 2019, 99, .	1.1	9
12	Thermonuclear fusion rates for tritium + deuterium using Bayesian methods. Physical Review C, 2019, 99, .	1.1	17
13	Astrophysical S-factors, Thermonuclear Rates, and Electron Screening Potential for the $^3\text{He}(d,p)^4\text{He}$ Big Bang Reaction via a Hierarchical Bayesian Model. Astrophysical Journal, 2019, 872, 75.	1.6	14
14	New measurement of the $E_{\text{lab}}=0.83$ MeV resonance in $\text{Ne}^{22}(\alpha,\alpha)\text{Mg}^{26}$ . Physical Review C, 2019, 99, .	1.1	10
15	Blister resistant targets for nuclear reaction experiments with $\alpha$ -particle beams. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 921, 1-7.	0.7	1
16	Direct Charged-Particle Measurements Using Stable Beams Above Ground. Springer Proceedings in Physics, 2019, , 225-230.	0.1	0
17	On Presolar Stardust Grains from CO Classical Novae. Astrophysical Journal, 2018, 855, 76.	1.6	25
18	Measurements of thorium and uranium daughters in radioenvironmental samples using $\alpha$ - $\alpha$ -coincidence spectrometry. Applied Radiation and Isotopes, 2018, 141, 24-32.	0.7	3

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19	Measurements of low-energy resonances in the $^{22}\text{Ne}(\alpha, n)^{25}\text{Mg}$ reaction. Physical Review C, 2014, 89, 014607.	1.6	22
20	White paper on nuclear astrophysics and low energy nuclear physics Part 1: Nuclear astrophysics. Progress in Particle and Nuclear Physics, 2017, 94, 1-67.	5.6	32
21	Sensitivity to Thermonuclear Reaction Rates in Modeling the Abundance Anomalies of NGC 2419. Astrophysical Journal, 2017, 848, 14.	1.6	22
22	A low-background $^{23}\text{Na}(\alpha, n)^{26}\text{Mg}$ coincidence spectrometer for radioisotope studies. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 871, 66-71.	0.7	5
23	Bayesian Estimation of Thermonuclear Reaction Rates for Deuterium+Deuterium Reactions. Astrophysical Journal, 2017, 849, 134.	1.6	22
24	Revisiting nucleosynthesis in globular clusters. Astronomy and Astrophysics, 2017, 608, A28.	2.1	44
25	ON POTASSIUM AND OTHER ABUNDANCE ANOMALIES OF RED GIANTS IN NGC 2419. Astrophysical Journal, 2016, 818, 98.	1.6	34
26	BAYESIAN ESTIMATION OF THERMONUCLEAR REACTION RATES. Astrophysical Journal, 2016, 831, 107.	1.6	43
27	PROPERTIES OF CARBON-OXYGEN WHITE DWARFS FROM MONTE CARLO STELLAR MODELS. Astrophysical Journal, 2016, 823, 46.	1.6	38
28	The Thermonuclear Runaway and the Classical Nova Outburst. Publications of the Astronomical Society of the Pacific, 2016, 128, 051001.	1.0	99
29	Measurement of the $^{23}\text{Na}(\alpha, n)^{26}\text{Mg}$ resonance in the $^{23}\text{Na}(\alpha, n)^{26}\text{Mg}$ reaction. Physical Review C, 2015, 92, 014607.	1.6	87
30	$^{13}\text{C}$ -Ray spectroscopy using a binned likelihood approach. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 830, 427-437.	0.7	10
31	New reaction rates for improved primordial $^{23}\text{Na}$ calculation and the cosmic evolution of deuterium. Physical Review D, 2015, 92, 013001.	1.6	87
32	Statistical methods for thermonuclear reaction rates and nucleosynthesis simulations. Journal of Physics G: Nuclear and Particle Physics, 2015, 42, 034007.	1.4	33
33	Thermonuclear reaction rate of $^{23}\text{Na}(\alpha, n)^{26}\text{Mg}$ . Physical Review C, 2014, 89, 014607.	1.6	22
34	$^{23}\text{Na}(\alpha, n)^{26}\text{Mg}$ resonance in the $^{23}\text{Na}(\alpha, n)^{26}\text{Mg}$ reaction. Physical Review C, 2014, 89, 014607.	1.1	13
35	Nuclear astrophysics in the laboratory and in the universe. AIP Advances, 2014, 4, .	0.6	9
36	Radioisotope studies of the farmville meteorite using $^{23}\text{Na}(\alpha, n)^{26}\text{Mg}$ coincidence spectrometry. Applied Radiation and Isotopes, 2014, 94, 23-29.	0.7	4

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37	ment of the resonance in the xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msubsup><mml:mi>E</mml:mi><mml:mi>F</mml:mi><mml:mi></mml:mi></mml:msubsup></mml:mrow>		

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55	Ratio of germanium detector peak efficiencies at photon energies of 4.4 and 11.7MeV: Experiment versus simulation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 618, 190-198.	0.7	37
56	Charged-particle thermonuclear reaction rates: I. Monte Carlo method and statistical distributions. Nuclear Physics A, 2010, 841, 1-30.	0.6	116
57	Charged-particle thermonuclear reaction rates: III. Nuclear physics input. Nuclear Physics A, 2010, 841, 251-322.	0.6	97
58	Charged-particle thermonuclear reaction rates: IV. Comparison to previous work. Nuclear Physics A, 2010, 841, 323-388.	0.6	34
59	HYDRODYNAMIC MODELS OF TYPE I X-RAY BURSTS: METALLICITY EFFECTS. Astrophysical Journal, Supplement Series, 2010, 189, 204-239.	3.0	70
60	Measurement of $\langle \sigma v \rangle$ for $^{17}\text{O} + ^{12}\text{C}$ at $T = 0.1$ to $10$ keV. Resonance strength in $^{17}\text{O} + ^{12}\text{C}$ at $T = 0.1$ to $10$ keV.	1.1	27
61	Measurement of $\langle \sigma v \rangle$ for $^{22}\text{Ne} + ^{12}\text{C}$ at $T = 0.1$ to $10$ keV. Resonance strength in $^{22}\text{Ne} + ^{12}\text{C}$ at $T = 0.1$ to $10$ keV.	1.1	48
62	Monte-Carlo Reaction Rate Evaluation for Astrophysics. , 2010, , .		0
63	Introduction to Nuclear Astrophysics. , 2010, , .		0
64	Hydrodynamic Models of Classical Novae and Type I X-Ray Bursts. , 2010, , .		1
65	New Developments in Experimental Thermonuclear Reactions. , 2010, , .		0
66	THE EFFECTS OF THE $^{12}\text{C} + ^{12}\text{C}$ NUCLEAR REACTION AND OTHER IMPROVEMENTS IN THE NUCLEAR REACTION RATE LIBRARY ON SIMULATIONS OF THE CLASSICAL NOVA OUTBURST. Astrophysical Journal, 2009, 692, 1532-1542.	1.6	70
67	Impact of uncertainties in reaction $Q$ values on nucleosynthesis in type I x-ray bursts. Physical Review C, 2009, 79, .	1.1	57
68	Photoexcitation of astrophysically important states in $^{26}\text{Mg} + ^{12}\text{C}$ . Physical Review C, 2009, 80, .	1.1	42
69	Two experimental approaches in nuclear astrophysics using neutrons. AIP Conference Proceedings, 2008, , .	0.3	0
70	Matching of experimental and statistical-model thermonuclear reaction rates at high temperatures. Physical Review C, 2008, 78, .	1.1	7
71	New reaction rate for $^{16}\text{O} + ^{12}\text{C}$ at $T = 0.1$ to $10$ keV.	1.1	43
72	The Effects of Variations in Nuclear Processes on Type I X-Ray Burst Nucleosynthesis. Astrophysical Journal, Supplement Series, 2008, 178, 110-136.	3.0	112

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73	Reaction rate uncertainties and $^{26}\text{Al}$ in AGB silicon carbide stardust. <i>Astronomy and Astrophysics</i> , 2008, 478, 521-526.	2.1	21
74	The Effects of Changes in Reaction Rates on Simulations of Nova Explosions. <i>AIP Conference Proceedings</i> , 2007, , .	0.3	3
75	Remeasurement of the 193 keV resonance in $^{17}(\text{p},\hat{\pm})\text{N}^{14}$ . <i>Physical Review C</i> , 2007, 75, .	1.1	23
76	Gamow peak in thermonuclear reactions at high temperatures. <i>Physical Review C</i> , 2007, 75, .	1.1	25
77	Experimental evidence for a natural parity state in $^{26}\text{Mg}$ and its impact on the production of neutrons for the $^{26}\text{Mg}$ process. <i>Physical Review</i>	1.1	34
78	Reaction rate uncertainties and the operation of the NeNa and MgAl chains during HBB in intermediate-mass AGB stars. <i>Astronomy and Astrophysics</i> , 2007, 466, 641-648.	2.1	80
79	Light nuclei in galactic globular clusters: constraints on the self-enrichment scenario from nucleosynthesis. <i>Astronomy and Astrophysics</i> , 2007, 470, 179-190.	2.1	121
80	Nucleosynthesis in classical novae. <i>Nuclear Physics A</i> , 2006, 777, 550-578.	0.6	105
81	Nuclear astrophysics studies at the LENA facility: The $\gamma$ -ray detection system. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2006, 566, 452-464.	0.7	34
82	Nuclear Astrophysics: Direct measurements with stable beams. <i>Nuclear Physics A</i> , 2005, 758, 73-79.	0.6	4
83	Explosive hydrogen burning of $^{23}\text{Na}$ in classical novae. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2005, 31, S1785-S1789.	1.4	1
84	Thermonuclear reaction rate of $^{17}(\text{p},\hat{3})\text{F}^{18}$ . <i>Physical Review C</i> , 2005, 71, .	1.1	48
85	Investigation of the $^{23}\text{Na}(\text{p},\hat{3})\text{Mg}^{24}$ and $^{23}\text{Na}(\text{p},\hat{\pm})\text{Ne}^{20}$ reactions via $(\text{He}^3,\text{d})$ spectroscopy. <i>Physical Review C</i> , 2004, 70, .	1.1	63
86	Spectroscopic factors from direct proton capture. <i>Physical Review C</i> , 2004, 69, .	1.1	24
87	Does an NeNa Cycle Exist in Explosive Hydrogen Burning?. <i>Astrophysical Journal</i> , 2004, 615, L37-L40.	1.6	27
88	The $^{17}\text{F}(\text{p},\hat{3})\text{Ne}^{18}$ direct capture cross section. <i>Nuclear Physics A</i> , 2003, 718, 587-589.	0.6	11
89	Astrophysically important $^{26}\text{Si}$ states studied with the $^{28}\text{Si}(\text{p},\text{t})\text{Si}^{26}$ reaction. <i>Physical Review C</i> , 2002, 65, .	1.1	42
90	Strength of the $^{18}(\text{p},\hat{\pm})\text{O}^{15}$ Resonance at $E_{\text{c.m.}} = 330 \text{ keV}$ . <i>Physical Review Letters</i> , 2002, 89, 262501.	2.9	73

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91	Measurement of the $E_R=338$ keV resonance strength for $^{23}\text{Na}(p, \hat{1}\pm)^{20}\text{Ne}$ . <i>Physical Review C</i> , 2002, 65, .	1.1	7
92	The Effects of Thermonuclear Reaction Rate Variations on Nova Nucleosynthesis: A Sensitivity Study. <i>Astrophysical Journal, Supplement Series</i> , 2002, 142, 105-137.	3.0	222
93	Study of the $^{18}\text{F}(p, \hat{1}\pm)^{15}\text{O}$ Reaction at Energies Relevant for $^{18}\text{F}$ Nucleosynthesis in Novae. <i>AIP Conference Proceedings</i> , 2002, , .	0.3	0
94	Studies of weak capture- $\hat{1}^3$ -ray resonances via coincidence techniques. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2002, 480, 610-625.	0.7	15
95	Proton-induced Thermonuclear Reaction Rates for $A = 20$ – $40$ Nuclei. <i>Astrophysical Journal, Supplement Series</i> , 2001, 134, 151-171.	3.0	230
96	Nuclear recoil detection with microchannel plates. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2001, 459, 532-542.	0.7	5
97	Lifetime of the 6793-keV State in $^{15}\text{O}$ . <i>Physical Review Letters</i> , 2001, 87, 152501.	2.9	63
98	Measurement of the $^{24}\text{Mg}(p, t)^{22}\text{Mg}$ reaction and implications for the $^{21}\text{Na}(p, \hat{1}^3)^{22}\text{Mg}$ stellar reaction rate. <i>Physical Review C</i> , 2001, 63, .	1.1	42
99	Investigation of the $^{22}\text{Ne}(p, \hat{1}^3)^{23}\text{Na}$ reaction via $(^3\text{He}, d)$ spectroscopy. <i>Physical Review C</i> , 2001, 65, .	1.1	64
100	Measurement of the $^{40}\text{Ca}(^3\text{He}, t)^{40}\text{Sc}$ reaction. <i>Physical Review C</i> , 2000, 61, .	1.1	12
101	Error analysis for resonant thermonuclear reaction rates. <i>Nuclear Physics A</i> , 1999, 647, 259-279.	0.6	23
102	Reaction rate of $^{24}\text{Mg}(p, \hat{1}^3)^{25}\text{Al}$ . <i>Nuclear Physics A</i> , 1999, 660, 349-378.	0.6	46
103	Explosive Hydrogen Burning of $^{27}\text{Si}$ , $^{31}\text{S}$ , $^{35}\text{Ar}$ , and $^{39}\text{Ca}$ in Novae and X-ray Bursts. <i>Astrophysical Journal</i> , 1999, 524, 434-453.	1.6	63
104	Low-energy resonance strengths for proton capture on Mg and Al nuclei. <i>Nuclear Physics A</i> , 1998, 644, 263-276.	0.6	35
105	Thermonuclear reaction rate of $^{23}\text{Mg}(p, \hat{1}^3)^{24}\text{Al}$ . <i>Physical Review C</i> , 1998, 58, 1798-1803.	1.1	17
106	Breakout from the hot CNO cycle: The $^{18}\text{F}(p, \hat{1}^3)$ vs $^{18}\text{F}(p, \hat{1}\pm)$ branching ratio. <i>Physical Review C</i> , 1998, 57, 2731-2739.	1.1	69
107	Proton single-particle reduced widths for unbound states. <i>Nuclear Physics A</i> , 1997, 618, 166-175.	0.6	74
108	Beta-delayed particle decay of $^{36}\text{K}$ . <i>Nuclear Physics A</i> , 1996, 609, 237-253.	0.6	10

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109	New stellar reaction rates for $Mg^{25}(p, \hat{1}^3)Al$ and $Al^{25}(p, \hat{1}^3)Si$ . <i>Physical Review C</i> , 1996, 53, 475-496.	1.1	90
110	Indirect study of low-energy resonances in $P^{31}(p, \hat{1}^{\pm})Si$ and $Cl^{35}(p, \hat{1}^{\pm})S$ . <i>Physical Review C</i> , 1995, 52, 1681-1690.	1.1	32
111	Reaction rate for $S^{31}(p, \hat{1}^3)Cl$ and its influence on the SiP cycle in hot stellar hydrogen burning. <i>Physical Review C</i> , 1994, 50, 1185-1193.	1.1	15
112	Explosive hydrogen burning of $^{35}Cl$ . <i>Nuclear Physics A</i> , 1994, 571, 132-158.	0.6	18
113	Reaction rates and reaction sequences in the rp-process. <i>Astrophysical Journal</i> , 1994, 432, 326.	1.6	163
114	The astrophysical implications of low-energy resonances in $^{22}Ne + \hat{1}^{\pm}$ . <i>Nuclear Physics A</i> , 1993, 561, 95-111.	0.6	69
115	Explosive hydrogen burning of $^{31}P$ . <i>Nuclear Physics A</i> , 1993, 559, 83-99.	0.6	22
116	Measurement of the resonance at $E_R=1422$ keV in $Ar^{36}(p, \hat{1}^3)K$ . <i>Physical Review C</i> , 1993, 48, R1479-R1483.	1.1	15
117	Reaction $Ar^{36}(p, \hat{1}^3)K$ in explosive hydrogen burning. <i>Physical Review C</i> , 1992, 45, 2989-2994.	1.1	12
118	Direct proton capture on $^{32}S$ . <i>Nuclear Physics A</i> , 1992, 539, 97-111.	0.6	19
119	The reaction branching $^{31}P(p, \hat{1}^3)/^{31}P(p, \hat{1}^{\pm})$ in the RP-process. <i>Nuclear Physics A</i> , 1991, 533, 153-169.	0.6	15