

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	Proton-induced Thermonuclear Reaction Rates for A = 20–40 Nuclei. <i>Astrophysical Journal, Supplement Series</i> , 2001, 134, 151-171.	3.0	230
2	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
3	Charged-particle thermonuclear reaction rates: II. Tables and graphs of reaction rates and probability density functions. <i>Nuclear Physics A</i> , 2010, 841, 31-250.	0.6	211
4	Reaction rates and reaction sequences in the rp-process. <i>Astrophysical Journal</i> , 1994, 432, 326.	1.6	163
5	STARLIB: A NEXT-GENERATION REACTION-RATE LIBRARY FOR NUCLEAR ASTROPHYSICS. <i>Astrophysical Journal, Supplement Series</i> , 2013, 207, 18.	3.0	148
6	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
7	Charged-particle thermonuclear reaction rates: I. Monte Carlo method and statistical distributions. <i>Nuclear Physics A</i> , 2010, 841, 1-30.	0.6	116
8	The Effects of Variations in Nuclear Processes on Type I X-ray Burst Nucleosynthesis. <i>Astrophysical Journal, Supplement Series</i> , 2008, 178, 110-136.	3.0	112
9	THE EFFECTS OF THERMONUCLEAR REACTION RATE VARIATIONS ON ²⁶ Al PRODUCTION IN MASSIVE STARS: A SENSITIVITY STUDY. <i>Astrophysical Journal, Supplement Series</i> , 2011, 193, 16.	3.0	107
10	Nucleosynthesis in classical novae. <i>Nuclear Physics A</i> , 2006, 777, 550-578.	0.6	105
11	Nucleosynthesis in type I X-ray bursts. <i>Progress in Particle and Nuclear Physics</i> , 2013, 69, 225-253.	5.6	99
12	The Thermonuclear Runaway and the Classical Nova Outburst. <i>Publications of the Astronomical Society of the Pacific</i> , 2016, 128, 051001.	1.0	99
13	Charged-particle thermonuclear reaction rates: III. Nuclear physics input. <i>Nuclear Physics A</i> , 2010, 841, 251-322.	0.6	97
14	New stellar reaction rates for $Mg^{25}(p, \hat{1}^3)_{26}Al$ and $Al^{25}(p, \hat{1}^3)_{26}Si$. <i>Physical Review C</i> , 1996, 53, 475-496.	1.1	90
15	New reaction rates for improved primordial D calculation and the cosmic evolution of deuterium. <i>Physical Review D</i> , 2015, 92, .	1.6	87
16	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
17	Proton single-particle reduced widths for unbound states. <i>Nuclear Physics A</i> , 1997, 618, 166-175.	0.6	74
18	Strength of the $F_{18}(p, \hat{1}^{\pm})O_{15}$ Resonance at $E_{c.m.} = 330$ keV. <i>Physical Review Letters</i> , 2002, 89, 262501.	2.9	73

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19	THE EFFECTS OF THE p -NUCLEAR REACTION AND OTHER IMPROVEMENTS IN THE NUCLEAR REACTION RATE LIBRARY ON SIMULATIONS OF THE CLASSICAL NOVA OUTBURST. <i>Astrophysical Journal</i> , 2009, 692, 1532-1542.	1.6	70
20	HYDRODYNAMIC MODELS OF TYPE I X-RAY BURSTS: METALLICITY EFFECTS. <i>Astrophysical Journal</i> , Supplement Series, 2010, 189, 204-239.	3.0	70
21	The astrophysical implications of low-energy resonances in $^{22}\text{Ne} + \text{He}$. <i>Nuclear Physics A</i> , 1993, 561, 95-111.	0.6	69
22	Breakout from the hot CNO cycle: The $^{18}\text{F}(p, \alpha)^{15}\text{O}$ vs $^{18}\text{F}(p, n)^{18}\text{Ne}$ branching ratio. <i>Physical Review C</i> , 1998, 57, 2731-2739.	1.1	69
23	Reaction rates for the $^{22}\text{Ne}(p, n)^{22}\text{Na}$ process neutron source	1.1	69
24	Investigation of the $^{22}\text{Ne}(p, \alpha)^{19}\text{F}$ reaction via $(^3\text{He}, d)$ spectroscopy. <i>Physical Review C</i> , 2001, 65, .	1.1	64
25	Explosive Hydrogen Burning of ^{27}Si , ^{31}S , ^{35}Ar , and ^{39}Ca in Novae and X-ray Bursts. <i>Astrophysical Journal</i> , 1999, 524, 434-453.	1.6	63
26	Lifetime of the 6793-keV State in ^{15}O . <i>Physical Review Letters</i> , 2001, 87, 152501.	2.9	63
27	Investigation of the $^{23}\text{Na}(p, \alpha)^{20}\text{Ne}$ and $^{23}\text{Na}(p, n)^{23}\text{Mg}$ reactions via $(^3\text{He}, d)$ spectroscopy. <i>Physical Review C</i> , 2004, 70, .	1.1	63
28	Carbon-Oxygen Classical Novae Are Galactic ^7Li Producers as well as Potential Supernova Ia Progenitors. <i>Astrophysical Journal</i> , 2020, 895, 70.	1.6	59
29	Impact of uncertainties in reaction Q values on nucleosynthesis in type I x-ray bursts. <i>Physical Review C</i> , 2009, 79, .	1.1	57
30	Nuclear astrophysics: the unfinished quest for the origin of the elements. <i>Reports on Progress in Physics</i> , 2011, 74, 096901.	8.1	57
31	NUCLEAR THERMOMETERS FOR CLASSICAL NOVAE. <i>Astrophysical Journal</i> , 2013, 762, 105.	1.6	53
32	Cross-Section Measurements of the $^{86}\text{Kr}(p, n)^{86}\text{Rb}$ reaction	1.1	48
33	Thermonuclear reaction rate of $^{17}\text{O}(p, \alpha)^{14}\text{N}$. <i>Physical Review C</i> , 2005, 71, .	1.1	48
34	Reaction rate of $^{24}\text{Mg}(p, \alpha)^{24}\text{Al}$. <i>Nuclear Physics A</i> , 1999, 660, 349-378.	0.6	46
35	Revisiting nucleosynthesis in globular clusters. <i>Astronomy and Astrophysics</i> , 2017, 608, A28.	2.1	44
36	New reaction rate for $^{16}\text{O}(p, n)^{16}\text{F}$	1.1	43

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37	BAYESIAN ESTIMATION OF THERMONUCLEAR REACTION RATES. <i>Astrophysical Journal</i> , 2016, 831, 107.	1.6	43
38	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
39	Astrophysically important ^{26}Si states studied with the $^{28}\text{Si}(p,t)^{26}\text{Si}$ reaction. <i>Physical Review C</i> , 2002, 65, .	1.1	42
40	Photoexcitation of astrophysically important states in ^{26}Mg . <i>Physical Review C</i> , 2009, 80, .	1.1	42
41	PROPERTIES OF CARBON AND OXYGEN WHITE DWARFS FROM MONTE CARLO STELLAR MODELS. <i>Astrophysical Journal</i> , 2016, 823, 46.	1.6	38
42	Ratio of germanium detector peak efficiencies at photon energies of 4.4 and 11.7 MeV: Experiment versus simulation. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2010, 618, 190-198.	0.7	37
43	Low-energy resonance strengths for proton capture on Mg and Al nuclei. <i>Nuclear Physics A</i> , 1998, 644, 263-276.	0.6	35
44	Nuclear astrophysics studies at the LENA facility: The γ -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
45	Production of ^{26}Mg and its impact on the production of neutrons for the $^{26}\text{Mg}(p,n)^{26}\text{Si}$ process. <i>Physical Review C</i> , 2010, 81, 014807.	1.1	34
46	Charged-particle thermonuclear reaction rates: IV. Comparison to previous work. <i>Nuclear Physics A</i> , 2010, 841, 323-388.	0.6	34
47	ON POTASSIUM AND OTHER ABUNDANCE ANOMALIES OF RED GIANTS IN NGC 2419. <i>Astrophysical Journal</i> , 2016, 818, 98.	1.6	34
48	Statistical methods for thermonuclear reaction rates and nucleosynthesis simulations. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2015, 42, 034007.	1.4	33
49	Indirect study of low-energy resonances in $^{31}\text{P}(p,\hat{1}^{\pm})^{28}\text{Si}$ and $^{35}\text{Cl}(p,\hat{1}^{\pm})^{32}\text{S}$. <i>Physical Review C</i> , 1995, 52, 1681-1690.	1.1	32
50	White paper on nuclear astrophysics and low energy nuclear physics Part 1: Nuclear astrophysics. <i>Progress in Particle and Nuclear Physics</i> , 2017, 94, 1-67.	5.6	32
51	NUCLEAR MIXING METERS FOR CLASSICAL NOVAE. <i>Astrophysical Journal</i> , 2013, 777, 130.	1.6	31
52	High-intensity-beam study of $^{17}\text{O}(p,\alpha)^{14}\text{N}$ and $^{18}\text{O}(p,\alpha)^{15}\text{N}$. <i>Physical Review C</i> , 2009, 80, 014807.	1.1	29
53	Does an NeNa Cycle Exist in Explosive Hydrogen Burning?. <i>Astrophysical Journal</i> , 2004, 615, L37-L40.	1.6	27
54	Measurement of $^{17}\text{O}(p,\alpha)^{14}\text{N}$ and $^{18}\text{O}(p,\alpha)^{15}\text{N}$. <i>Physical Review C</i> , 2009, 80, 014807.	1.1	27

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55	Gamow peak in thermonuclear reactions at high temperatures. Physical Review C, 2007, 75, . Thermonuclear reaction rate of $\langle \sigma v \rangle$ for ${}^{12}\text{C} + {}^4\text{He}$ reaction. Physical Review C, 2007, 75, .	1.1	25
56	Thermonuclear reaction rate of $\langle \sigma v \rangle$ for ${}^{12}\text{C} + {}^4\text{He}$ reaction. Physical Review C, 2007, 75, .	1.1	25
57	On Presolar Stardust Grains from CO Classical Novae. Astrophysical Journal, 2018, 855, 76.	1.6	25
58	Spectroscopic factors from direct proton capture. Physical Review C, 2004, 69, .	1.1	24
59	Error analysis for resonant thermonuclear reaction rates. Nuclear Physics A, 1999, 647, 259-279.	0.6	23
60	Remeasurement of the 193 keV resonance in ${}^{17}\text{O}(p,\alpha){}^{14}\text{N}$. Physical Review C, 2007, 75, .	1.1	23
61	Explosive hydrogen burning of ${}^{31}\text{P}$. Nuclear Physics A, 1993, 559, 83-99. New measurements of low-energy resonances in the ${}^{22}\text{Ne} + {}^4\text{He}$ reaction. Physical Review C, 2007, 75, .	0.6	22
62	New measurements of low-energy resonances in the ${}^{22}\text{Ne} + {}^4\text{He}$ reaction. Physical Review C, 2007, 75, .	1.1	22
63	Sensitivity to Thermonuclear Reaction Rates in Modeling the Abundance Anomalies of NGC 2419. Astrophysical Journal, 2017, 848, 14.	1.6	22
64	Bayesian Estimation of Thermonuclear Reaction Rates for Deuterium+Deuterium Reactions. Astrophysical Journal, 2017, 849, 134.	1.6	22
65	Measurement of the ${}^{22}\text{Ne} + {}^4\text{He}$ resonance in the ${}^{22}\text{Ne} + {}^4\text{He}$ reaction. Physical Review C, 2007, 75, .	1.1	22

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73	Thermonuclear fusion rates for tritium + deuterium using Bayesian methods. Physical Review C, 2019, 99, .	1.1	17
74	The reaction branching $31\text{P}(p, \hat{1}^3)/31\text{P}(p, \hat{1}^{\pm})$ in the RP-process. Nuclear Physics A, 1991, 533, 153-169.	0.6	15
75	Measurement of the resonance at $E_R=1422$ keV in $\text{Ar}36(p, \hat{1}^3)\text{K}37$. Physical Review C, 1993, 48, R1479-R1483.	1.1	15
76	Reaction rate for $31\text{P}(p, \hat{1}^3)32\text{Cl}$ and its influence on the SiP cycle in hot stellar hydrogen burning. Physical Review C, 1994, 50, 1185-1193.	1.1	15
77	Studies of weak capture- $\hat{1}^3$ -ray resonances via coincidence techniques. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated	0.7	15
78	Theoretical evaluation of the reaction rates for Al^{26}		

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91	Calculation of resonance energies from $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mi} \rangle Q \langle / \text{mml:mi} \rangle \langle / \text{mml:math} \rangle$ values. Physical Review C, 2019, 99, .	1.1	9
92	Hierarchical Bayesian Thermonuclear Rate for the $\langle \text{sup} \rangle 7 \langle / \text{sup} \rangle \text{Be}(n,p) \langle \text{sup} \rangle 7 \langle / \text{sup} \rangle \text{Li}$ Big Bang Nucleosynthesis Reaction. Astrophysical Journal, 2020, 894, 134.	1.6	8
93	Bayesian Estimation of the $D(p, \hat{1}^3) \langle \text{sup} \rangle 3 \langle / \text{sup} \rangle \text{He}$ Thermonuclear Reaction Rate. Astrophysical Journal, 2021, 923, 49.	1.6	8
94	Measurement of the $E_R = 338 \text{ keV}$ resonance strength for $^{23}\text{Na}(p, \hat{1}^{\pm})^{20}\text{Ne}$. Physical Review C, 2002, 65, .	1.1	7
95	Matching of experimental and statistical-model thermonuclear reaction rates at high temperatures. Physical Review C, 2008, 78, .	1.1	7
96	Linear polarization $\hat{\epsilon}$ direction correlations in γ -ray scattering experiments. European Physical Journal A, 2021, 57, 1.	1.0	6
97	Nuclear recoil detection with microchannel plates. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 459, 532-542.	0.7	5
98	A low-background $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="mml48" display="inline" overflow="scroll" altimg="si1.gif"} \rangle \langle \text{mml:mi} \rangle \hat{1}^3 \langle / \text{mml:mi} \rangle \langle / \text{mml:math} \rangle$ -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
99	Thermonuclear reaction rate of $\text{Si}^{30}(p, \hat{1}^3)\text{P}^{31}$. Physical Review C, 2020, 102, .	1.1	5
100	Nuclear Astrophysics: Direct measurements with stable beams. Nuclear Physics A, 2005, 758, 73-79.	0.6	4
101	Radioisotope studies of the farmville meteorite using $\hat{1}^3$ -coincidence spectrometry. Applied Radiation and Isotopes, 2014, 94, 23-29.	0.7	4
102	Revised decay properties of the key 93-keV resonance in the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:mi} \rangle \text{Mg} \langle / \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle / \rangle \langle \text{mml:none} \rangle / \rangle \langle \text{mml:mn} \rangle 25 \langle / \text{mml:mn} \rangle \langle / \text{mml:mmultiscripts} \rangle \langle \text{mml:mo} \rangle (\langle / \text{mml:mo} \rangle \langle \text{mml:mi} \rangle p \langle / \text{mml:mi} \rangle \langle \text{mml:mo} \rangle , \langle / \text{mml:mo} \rangle \langle \text{mml:mi} \rangle \hat{1}^3 \langle / \text{mml:mi} \rangle \langle / \text{mml:mrow} \rangle$ reaction and its influence on the MgAl cycle in astrophysical environments. Physical Review C, 2022, 105, .	1.1	4
103	The Effects of Changes in Reaction Rates on Simulations of Nova Explosions. AIP Conference Proceedings, 2007, , .	0.3	3
104	Measurements of thorium and uranium daughters in radioenvironmental samples using $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0055.gif" overflow="scroll"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \hat{1}^3 \langle / \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \hat{1}^3 \langle / \text{mml:mi} \rangle \langle / \text{mml:mrow} \rangle \langle / \text{mml:math} \rangle$ -coincidence spectrometry. Applied Radiation and Isotopes, 2018, 141, 24-32.	0.7	3
105	$\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:mi} \rangle B \langle / \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle / \rangle \langle \text{mml:none} \rangle / \rangle \langle \text{mml:mn} \rangle 11 \langle / \text{mml:mn} \rangle \langle / \text{mml:mmultiscripts} \rangle \langle / \text{mml:math} \rangle$ and $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:mi} \rangle \text{Ca} \langle / \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle / \rangle \langle \text{mml:none} \rangle / \rangle \langle \text{mml:mn} \rangle 48 \langle / \text{mml:mn} \rangle \langle / \text{mml:mmultiscripts} \rangle \langle / \text{mml:math} \rangle$ levels at 88^{+9} MeV by nuclear	1.1	3
106	Explosive hydrogen burning of ^{23}Na in classical novae. Journal of Physics G: Nuclear and Particle Physics, 2005, 31, S1785-S1789.	1.4	1
107	Hydrodynamic Models of Classical Novae and Type I X-Ray Bursts. , 2010, , .		1
108	Blister resistant targets for nuclear reaction experiments with $\hat{1}^{\pm}$ -particle beams. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 921, 1-7.	0.7	1

#	ARTICLE	IF	CITATIONS
109	<p> $\sigma_{\text{p}}^{\text{Si}}$ nuclear reaction rate of ^{29}Si </p> <p> $\sigma_{\text{p}}^{\text{Si}}$ nuclear reaction rate of ^{29}Si. Physical Review C, 2022, 105, . </p>		
110	Study of the $^{18}\text{F}(p, \hat{\pm})^{15}\text{O}$ Reaction at Energies Relevant for ^{18}F Nucleosynthesis in Novae. AIP Conference Proceedings, 2002, , .	0.3	0
111	Two experimental approaches in nuclear astrophysics using neutrons. AIP Conference Proceedings, 2008, , .	0.3	0
112	Topics in Nuclear Astrophysics. , 2010, , .		0
113	Monte-Carlo Reaction Rate Evaluation for Astrophysics. , 2010, , .		0
114	Introduction to Nuclear Astrophysics. , 2010, , .		0
115	New Developments in Experimental Thermonuclear Reactions. , 2010, , .		0
116	Hydrodynamic Studies of the Evolution of Recurrent Novae to Supernova Ia Explosions. Proceedings of the International Astronomical Union, 2011, 7, 166-171.	0.0	0
117	Current Status of the $^{22}\text{Ne} + \hat{\pm}$ -Process Neutron Source. Journal of Physics: Conference Series, 2012, 337, 012047.	0.3	0
118	Direct Charged-Particle Measurements Using Stable Beams Above Ground. Springer Proceedings in Physics, 2019, , 225-230.	0.1	0
119	Hydrogen Burning of ^{29}Si and Its Impact on Presolar Stardust Grains from Classical Novae. Astrophysical Journal, 2022, 928, 128.	1.6	0