

Ani Aprahamian

List of Publications by Year in descending order

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89
papers

2,418
citations

279798

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48
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89
all docs

89
docs citations

89
times ranked

1779
citing authors

#	ARTICLE	IF	CITATIONS
1	The impact of individual nuclear properties on r -process nucleosynthesis. Progress in Particle and Nuclear Physics, 2016, 86, 86-126.	14.4	333
2	Origin of the heaviest elements: The rapid neutron-capture process. Reviews of Modern Physics, 2021, 93, .	45.6	326
3	Half-Life of the Doubly Magic r -Process Nucleus ^{78}Ni . Physical Review Letters, 2005, 94, 112501.	7.8	147
4	β -decay half-lives and β -delayed neutron emission probabilities of nuclei in the region $^{100}\text{Zr} < Z < 110$ relevant for the r process. Physical Review C, 2009, 79, .	2.9	116
5	r -process nucleosynthesis: connecting rare-isotope beam facilities with the cosmos. Journal of Physics G: Nuclear and Particle Physics, 2019, 46, 083001.	3.6	115
6	Evidence for a new r -process nucleosynthesis state at 13.3 MeV. Physical Review C, 2011, 83, .	2.9	102
7	Isomers in neutron-rich $A \approx 190$ nuclides from ^{208}Pb fragmentation. European Physical Journal A, 2005, 23, 201-215.	2.5	94
8	Half-lives and branchings for β -delayed neutron emission for neutron-rich Co-Cu isotopes in the r -process. Physical Review C, 2010, 82, .	2.9	85
9	Impact of individual nuclear masses on r -process abundances. Physical Review C, 2015, 92, .	2.9	71
10	Long live isomer research. Nature Physics, 2005, 1, 81-82.	16.7	63
11	β -decay half-lives and β -delayed neutron emission probabilities for neutron rich nuclei close to the $N=82$ r -process path. Physical Review C, 2006, 73, .	2.9	62
12	β -decay of nuclei around ^{90}Se : Search for signatures of a r -process. Physical Review Letters, 2004, 92, 232502.	2.9	57
13	Precision Mass Measurements of Neutron-Rich Neodymium and Samarium Isotopes and Their Role in Understanding Rare-Earth Peak Formation. Physical Review Letters, 2018, 120, 262702.	7.8	55
14	Precision Mass Measurements on Neutron-Rich Rare-Earth Isotopes at JYFLTRAP: Reduced Neutron Pairing and Implications for r -Process Calculations. Physical Review Letters, 2018, 120, 262701.	7.8	46
15	Analog States of ^7He Observed via the $^6\text{He}(p,n)$ Reaction. Physical Review Letters, 2004, 92, 232502.	7.8	41
16	Sensitivity of the r -process to nuclear masses. European Physical Journal A, 2012, 48, 1.	2.5	39
17	Scintillation efficiency measurement of Na recoils in NaI(Tl) below the DAMA/LIBRA energy threshold. Physical Review C, 2015, 92, .	2.9	34
18	Irradiation-Enhanced Reactivity of Multilayer Al/Ni Nanomaterials. ACS Applied Materials & Interfaces, 2015, 7, 11272-11279.	8.0	33

#	ARTICLE	IF	CITATIONS
19	Investigation of the 4- \hat{I}^2 linear chain state in \hat{I}^2 -decay rates. Physical Review C, 2003, 68, .	2.9	31
20	Nature of excited 0^+ states in Gd^{158} described by the projected shell model. Physical Review C, 2003, 68, .	2.9	31
21	Investigation of the 4- \hat{I}^2 linear chain state in \hat{I}^2 -decay rates. Physical Review C, 2013, 88, .	2.9	31
22	Sensitivity studies for the main α process: \hat{I}^2 -decay rates. AIP Advances, 2014, 4, .	1.3	31
23	Half-Life Measurement for therp-Process Waiting Point Nuclide Zr^{80} . Physical Review Letters, 2000, 84, 2104-2107.	7.8	24
24	Sensitivity studies for the main α process: nuclear masses. AIP Advances, 2014, 4, .	1.3	21
25	Low-spin states from decay studies in the mass 80 region. Journal of Research of the National Institute of Standards and Technology, 2000, 105, 43.	1.2	21
26	In-band and inter-band $B(E2)$ values within the Triaxial Projected Shell Model. European Physical Journal A, 2002, 15, 455-458.	2.5	20
27	Lowest excited states of O^{13} . Physical Review C, 2007, 75, .	2.9	20
28	$Be^{8+}Be^{8}$ and $C^{12} + \hat{I}^2$ breakup states in O^{16} populated via the $C^{13}(He^{4}, \hat{I}^2)n$ reaction. Physical Review C, 2016, 94, .	2.9	20
29	Irradiation-induced reactions at the $CeO_2/SiO_2/Si$ interface. Journal of Chemical Physics, 2020, 152, 104704.	3.0	20
30	Search for shape-coexisting states in Ni^{66} from lifetime measurements. Physical Review C, 2017, 95, .	2.9	19
31	New isomer in Y^{80} . Physical Review C, 1998, 57, 1159-1166.	2.9	18
32	Structure of neutron-rich even-even $^{124, 126}Cd$. European Physical Journal A, 2005, 25, 117-118.	2.5	18
33	Rotational and vibrational excitations in Zr^{84} studied through in-beam and $Nb^{84}\hat{I}^2$ -decay spectroscopy. Physical Review C, 2003, 67, .	2.9	17
34	Thermodynamics and kinetics of solution combustion synthesis: $Ni(NO_3)_2$ fuels systems. Combustion and Flame, 2020, 221, 110-119.	5.2	17
35	\hat{I}^2 decay of Mn^{65} to Fe . Physical	2.9	16
36	Mechanisms of mechanochemical synthesis of cesium lead halides: pathways toward stabilization of \hat{I}^2 - $CsPbI_3$. Journal of Materials Science, 2020, 55, 8665-8678.	3.7	14

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37	Radioactive decay of ^{80}Y and low-lying states in ^{80}Sr . <i>Physical Review C</i> , 1999, 59, 59-70.	2.9	12
38	Lifetime measurements in ^{156}Gd and the onset of deformation at ^{156}Gd . <i>Physical Review C</i> , 2018, 98, .	2.9	12
39	Measurement of conversion electrons with the $^{208}\text{Pb}(p,n)^{208}\text{Bi}$ reaction and derivation of the shell model proton neutron hole interaction from the properties of ^{208}Bi . <i>Physical Review C</i> , 2007, 76, .	2.9	11
40	Hyperstoichiometric Uranium Dioxides: Rapid Synthesis and Irradiation-Induced Structural Changes. <i>Inorganic Chemistry</i> , 2021, 60, 18938-18949.	4.0	11
41	Irradiation-Driven Restructuring of UO_2 Thin Films: Amorphization and Crystallization. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 35153-35164.	8.0	10
42	Lifetimes of states in the opposite-parity bands of ^{153}Eu : Recoil-distance measurements following Coulomb excitation. <i>Physical Review C</i> , 1998, 58, 3171-3180.	2.9	8
43	Mass measurement of ^{80}Y by $\hat{I}^2\hat{I}^3$ coincidence spectroscopy. <i>Physical Review C</i> , 2003, 67, .	2.9	8
44	Recoil ions from the ^{134}Sb decay of ^{134}P confined in a Paul trap. <i>Physical Review C</i> , 2018, 97, .	2.9	8
45	Measurements of conversion electrons in the s-process branching point nucleus ^{176}Lu . <i>European Physical Journal A</i> , 2016, 52, 1.	2.5	7
46	Multiscale X-ray fluorescence mapping complemented by Raman spectroscopy for pigment analysis of a 15th century Breton manuscript. <i>Analytical Methods</i> , 2016, 8, 7696-7701.	2.7	7
47	β -decay half-lives of ^{134}Sb and their isomeric yield ratio produced by the spontaneous fission of ^{252}Cf . <i>Physical Review C</i> , 2018, 97, .	2.9	7
48	Lifetime measurements in ^{178}Hf . <i>Journal of Research of the National Institute of Standards and Technology</i> , 2000, 105, 125.	1.2	7
49	Collectivity of 0^+ states in ^{160}Gd . <i>Physical Review C</i> , 2015, 91, .	2.9	6
50	Shell structure from nuclear observables. <i>Physical Review C</i> , 2016, 93, .	2.9	6
51	The nature of low-lying $K^\pi = 0^+$ bands in nuclei. <i>Physics of Atomic Nuclei</i> , 2004, 67, 1750-1755.	0.4	5
52	New lifetime measurements in ^{109}Pd and the onset of deformation at ^{109}Pd . <i>Physical Review C</i> , 2015, 92, .	2.9	5
53	Lifetime measurements in ^{162}Dy . <i>Physical Review C</i> , 2017, 95, .	2.9	5
54	The use of cosmic-ray muons in the energy calibration of the Beta-decay Paul Trap silicon-detector array. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2018, 887, 122-127.	1.6	5

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55	Lifetime measurements of excited states in O . <i>Physical Review C</i> , 2021, 103, .	2.9	5
56	Investigation of the ^{19}Na nucleus via resonance elastic scattering. <i>Physics of Atomic Nuclei</i> , 2006, 69, 1979-1984.	0.4	4
57	$T = 3$. <i>Physical Review C</i> , 2008, 78, .	2.9	4
58	Breakup branches of Borromean beryllium-9. <i>AIP Conference Proceedings</i> , 2015, , .	0.4	4
59	Lifetime measurements of low-spin negative-parity levels in Gd^{160} . <i>Physical Review C</i> , 2017, 95, .	2.9	4
60	Recoil-ion detection efficiency for complex \hat{I}^2 decays studied using the Beta-decay Paul Trap. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2018, 898, 60-66.	1.6	4
61	$I = 137$. <i>Physical Review C</i> , 2018, 98, .	2.9	4
62	Sb . <i>Physical Review C</i> , 2015, , .	2.9	4
63	The Sensitivity of \hat{I}^3 -Process Nucleosynthesis to Individual \hat{I}^2 -Delayed Neutron Emission Probabilities. , 2015, , .		4
64	The half-life of the doubly-magic r-process nucleus ^{78}Ni . <i>European Physical Journal A</i> , 2005, 25, 639-642.	2.5	3
65	New insights into triaxiality and shape coexistence from odd-mass Rh^{109} . <i>Physical Review C</i> , 2018, 98, .	2.9	3
66	Properties of low-lying states in Co from lifetime measurements. <i>Physical Review C</i> , 2019, 99, .	2.9	3
67	Combustion in the ZrF_4 - Mg - Si and ZrF_4 - Al - Si systems for preparation of zirconium silicides. <i>Combustion and Flame</i> , 2021, 232, 111514.	5.2	3
68	Preparation and characterization of isotopically pure Mo targets for nuclear science measurements. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2022, 1034, 166763.	1.6	3
69	Evidence for a 3.8 MeV state in Be^9 . <i>Physical Review C</i> , 2016, 94, .	2.9	2
70	Be using p .	2.9	2
71	THE SENSITIVITY OF r-PROCESS NUCLEOSYNTHESIS TO THE PROPERTIES OF NEUTRON-RICH NUCLEI. , 2013, , .		2
72	Phase-imaging Mass Measurements with the Canadian Penning Trap Mass Spectrometer. , 2017, , .		2

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73	Fast-Timing Study in the 78Ni Region: $\hat{\Gamma}^2$ -Decay of 81Zn . , 2015, , .		2
74	From Exploding Stars to the Laboratory: Nucleosynthesis in the rp-Process. Hyperfine Interactions, 2001, 132, 413-420.	0.5	1
75	What is the nature of $K\pi = 0^+$ bands in deformed nuclei?. AIP Conference Proceedings, 2002, , .	0.4	1
76	Systematics in the structure of low-lying, non-yrast band-head configurations of strongly deformed nuclei. European Physical Journal A, 2005, 25, 451-452.	2.5	1
77	Nuclear isomers: structures and applications. AIP Conference Proceedings, 2006, , .	0.4	1
78	Open Challenges to Nuclear Physics Resulting from the Neutron Star Merger. Nuclear Physics News, 2021, 31, 11-16.	0.4	1
79	R-PROCESS MASS SENSITIVITIES. , 2013, , .		1
80	Band crossing phenomena in $N=Z$ nuclei a probe to $T=0$ pairing correlations?. Acta Physica Hungarica A Heavy Ion Physics, 1997, 6, 269-273.	0.4	1
81	Shape changes induced by quasiparticle alignment. , 1999, , .		0
82	NUCLEAR STRUCTURE AND NUCLEAR ASTROPHYSICS. , 2003, , .		0
83	Nuclear Astrophysics and Nuclear Structure. AIP Conference Proceedings, 2004, , .	0.4	0
84	Isobaric analog states of neutron-rich nuclei. Doppler shift as a measurement tool for resonance excitation functions. European Physical Journal A, 2005, 25, 259-260.	2.5	0
85	Doppler shift as a tool for studies of resonant (p,n) reactions with RIBs: Spectroscopy of 7He . AIP Conference Proceedings, 2006, , .	0.4	0
86	Sensitivities of the r-process to nuclear structure. , 2012, , .		0
87	$\hat{\Gamma}^2$ -DECAY STUDIES OF NEUTRON RICH NICKEL ISOTOPES. , 2004, , .		0
88	Status Update on the $\hat{\Gamma}^2$ - $\hat{\Gamma}^{1/2}$ Correlation Measurement in the $\hat{\Gamma}^2$ Decay of $\langle \sup \rangle 8 \langle /sup \rangle \text{B}$. , 2015, , .		0
89	Probing the Low-Energy Structure of $A = 109 \text{Ru} \hat{\epsilon} \text{Pd}$. , 2017, , .		0