

Iain Darby

List of Publications by Year in descending order

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85
papers

2,158
citations

218677

26
h-index

254184

43
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89
all docs

89
docs citations

89
times ranked

1496
citing authors

#	ARTICLE	IF	CITATIONS
1	Nuclear isomers in superheavy elements as stepping stones towards the island of stability. Nature, 2006, 442, 896-899.	27.8	176
2	Two-Proton Correlations in the Decay of ^{45}Fe . Physical Review Letters, 2007, 99, 192501.	7.8	108
3	Discovery of ^{109}Xe and ^{105}Te : Superallowed β^\pm Decay near Doubly Magic ^{100}Sn . Physical Review Letters, 2006, 97, 082501.	7.8	103
4	Orbital Dependent Nucleonic Pairing in the Lightest Known Isotopes of Tin. Physical Review Letters, 2010, 105, 162502.	7.8	98
5	Early Onset of Ground State Deformation in Neutron Deficient Polonium Isotopes. Physical Review Letters, 2011, 106, 052503.	7.8	94
6	Wobbling mode in ^{167}Ta . Physical Review C, 2009, 80, .	2.9	77
7	Charge radii of odd-A ^{191}Po isotopes. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 719, 362-366.	4.1	64
8	An IAEA multi-technique X-ray spectrometry endstation at Elettra Sincrotrone Trieste: benchmarking results and interdisciplinary applications. Journal of Synchrotron Radiation, 2018, 25, 189-203.	2.4	64
9	Collectivity and Configuration Mixing in ^{186}Pb , ^{188}Pb and ^{194}Po . Physical Review Letters, 2006, 97, 062501.	7.8	62
10	Electromagnetic moments of odd- A ^{203}Po . Physical Review C, 2014, 89, .	2.9	51
11	Complete correlation studies of two-proton decays: ^6Be and ^{45}Fe . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 677, 30-35.	4.1	50
12	Probing the limit of nuclear existence: Proton emission from ^{159}Re . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 641, 34-37.	4.1	46
13	Lifetimes of intruder states in ^{186}Pb , ^{188}Pb and ^{194}Po . Nuclear Physics A, 2008, 801, 83-100.	1.5	44
14	Experimental Study of LoRa Transmission over Seawater. Sensors, 2018, 18, 2853.	3.8	44
15	In-gas-cell laser ionization spectroscopy in the vicinity of ^{100}Sn : Magnetic moments and mean-square charge radii of ^{50}N . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 728, 191-197.	4.1	39
16	First observation of \hat{I}^2 -delayed three-proton emission in ^{45}Fe . Physical Review C, 2007, 76, .	2.9	37
17	\hat{I}^\pm decay of ^{159}Re and proton emission from ^{155}Ta . Physical Review C, 2007, 75, .	2.9	36
18	\hat{I}^\pm decay of the ^{50}N state of ^{100}Sn . Physical Review C, 2009, 80, .	2.9	36

#	ARTICLE	IF	CITATIONS
19	<p>$\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mi} \rangle \hat{I}^3 \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$-Ray Spectroscopy at the Limits: First Observation of Rotational Bands in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:mi} \rangle \text{Lr} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 255 \langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$. Physical Review Letters, 2009, 103, 212501.</p>	7.8	34
20	Investigation of nuclear collectivity in the neutron mid-shell nucleus Pb186. Physical Review C, 2007, 75, .	2.9	33
21	Shape coexistence along $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{N} \langle \text{mml:mi} \rangle \langle \text{mml:mo} \rangle = \langle \text{mml:mo} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$. Physical Review C, 2011, 84, .	2.9	27
22	Blurring the Boundaries: Decays of Multiparticle Isomers at the Proton Drip Line. Physical Review Letters, 2014, 112, 092501.	7.8	30
23	Cross section systematics for the lightest Bi and Po nuclei produced in complete fusion reactions with heavy ions. Physical Review C, 2005, 72, .	2.9	28
24	$\hat{I} \pm$ decay of the new isotopes Rn193,194. Physical Review C, 2006, 74, .	2.9	27
25	Identification of Excited States in the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{T} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \text{z} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$. Physical Review Letters, 2007, 99, 022501.	7.8	27
26	Structure of rotational bands in 253No. European Physical Journal A, 2009, 42, 333.	2.5	27
27	Low-energy structure of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \hat{I}^2 \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ -delayed proton emission branches in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:mi} \rangle \text{Co} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 27 \langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$.	2.9	26
28	Structure of rotational bands in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Co} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 27 \langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$ and $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Ta} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 39 \langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$.	2.9	26
29	Ultra-high-spin spectroscopy of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Er} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 156 \langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$ and $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Er} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 159 \langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$.	2.9	24
30	Display of the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Er} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 160 \langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$ decay of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Er} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 159 \langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$.	2.9	22
31	Structure changes in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Er} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 81 \langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$ and migrations	2.9	22
32	Structure changes in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Er} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 160 \langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$ from low to ultrahigh spin. Physical Review C, 2011, 83, .	2.9	22
33	Evidence for oblate structure in Pb186. Physical Review C, 2005, 72, .	2.9	21
34	Discovery of 157W and 161Os. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 690, 15-18.	4.1	21
35	Probing single-particle states approaching doubly magic $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Co} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 71 \langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$ and $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Co} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 73 \langle \text{mml:mrow} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$.	2.9	21
36	Recoil-beta tagging: A novel technique for studying proton-drip-line nuclei. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 565, 630-636.	1.6	20

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37	Structure of ^{191}Pb from $\hat{1}\pm$ - and $\hat{1}^2$ -decay spectroscopy. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 125103.	3.6	20
38	LoRa Transceiver With Improved Characteristics. IEEE Wireless Communications Letters, 2018, 7, 1058-1061.	5.0	20
39	Low-energy level schemes of ^{66}Fe and inferred proton and neutron excitations across ^{68}Fe and ^{69}Fe . Physical Review C, 2007, 76, .	2.9	19
40	Nuclear levels in proton-unbound ^{109}Ni and ^{110}Ni . Physical Review C, 2007, 76, .	2.9	18
41	Decay of the high-spin isomer in ^{160}Re : Changing single-particle structure beyond the proton drip line. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 695, 78-81.	4.1	17
42	Study of the deformation-driving $\hat{1}^2/d_5/2$ orbital in ^{67}Ni using one-neutron transfer reactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 736, 533-538.	4.1	16
43	Three-Year Long Source Apportionment Study of Airborne Particles in Ulaanbaatar Using X-Ray Fluorescence and Positive Matrix Factorization. Aerosol and Air Quality Research, 2019, 19, 1056-1067.	2.1	15
44	Two-proton radioactivity of ^{45}Fe . European Physical Journal A, 2009, 42, 431.	2.5	14
45	Diverse collective excitations in ^{159}Er up to high spin. Physical Review C, 2011, 84, .	2.9	14
46	Rotational structures and the wobbling mode in ^{167}Ta . Physical Review C, 2011, 83, .	2.9	14
47	of the ^{164}Lu $\hat{1}^2$ decay. Physical Review C, 2014, 89, .	2.9	14
48	Analogous intruder behavior near Ni, Sn, and Pb isotopes. Physical Review C, 2015, 92, .	2.9	14
49	In-beam gamma-ray spectroscopy of ^{190}Po and ^{197}Po . European Physical Journal A, 2007, 34, 275-281.	2.5	13
50	Isomeric and ground-state properties of ^{171}Pt . Physical Review C, 2007, 76, .	2.9	13
51	decay of ^{61}Mn to levels in ^{61}Fe . Physical Review C, 2013, 88, .	2.9	13
52	β decay of ^{72}Co and microsecond isomers in even-mass neutron-rich nickel isotopes. Journal of Physics G: Nuclear and Particle Physics, 2014, 41, 115104.	3.6	13
53	Shape coexistence studied in $^{182,184}\text{Hg}$ via the $\hat{1}^2$ decay of $^{182,184}\text{Tl}$. Journal of Physics G: Nuclear and Particle Physics, 2017, 44, 074001.	3.6	13
54	Occurrence and multivariate exploratory analysis of the natural radioactivity anomaly in the south coastal region of Kenya. Radiation Physics and Chemistry, 2018, 146, 34-41.	2.8	13

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55	Competing quasiparticle configurations in ^{163}W . Physical Review C, 2010, 81, .	2.9	12
56	Spectroscopic factor and proton formation probability for the $d_{3/2}$ proton emitter ^{151}Lu . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 770, 83-87.	4.1	12
57	Algorithms for pulse shape analysis using silicon detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 669, 70-78.	1.6	11
58	Multiparticle configurations of excited states in ^{155}Lu . Physical Review C, 2016, 94, .	2.9	11
59	Rapid in-situ radiometric assessment of the Mrima-Kiruku high background radiation anomaly complex of Kenya. Journal of Environmental Radioactivity, 2018, 188, 47-57.	1.7	11
60	decay study of the ^{100}Mn . Physical Review C, 2016, 94, .	2.9	11
61	Studies of excitation functions for the reaction between ^{66}Zn and ^{100}Mn . Physical Review C, 2016, 94, .	2.9	10
62	Characterizing the atomic mass surface beyond the proton drip line via ^{100}Mn -decay measurements of the ^{100}Mn . Physical Review C, 2016, 94, .	2.9	9
63	Experimental study of the $^{166}\text{d,p} \rightarrow ^{167}\text{one}$ -neutron transfer reaction. Physical Review C, 2015, 91, .	2.9	9
64	Rapid assessment methodology in NORM measurements from building materials of Uzbekistan. Journal of Environmental Radioactivity, 2017, 169-170, 186-191.	1.7	9
65	Evidence for prolate structure in light Pb isotopes from in-beam ^{163}W -ray spectroscopy of ^{163}W . Physical Review C, 2016, 94, .	2.9	8
66	of ^{163}W levels in the decay of ^{163}W . Physical Review C, 2016, 94, .	2.9	7
67	Band crossings in ^{163}W . Physical Review C, 2016, 94, .	2.9	7
68	Low-lying excited states in the neutron-deficient isotopes ^{163}Os and ^{163}Re . Physical Review C, 2010, 82, .	2.9	6
69	Collective excitations in the transitional nuclei ^{163}Os and ^{163}Re . Physical Review C, 2010, 82, .	2.9	6
70	Spectroscopy at the two-proton drip line: Excited states in ^{165}W . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 772, 703-707.	2.9	6
71	Publisher's Note: Wobbling mode in ^{167}Ta . Physical Review C, 2009, 80, .	4.1	6
72	[Phys. Rev. C 80 , 041304 (2009)]. Physical Review C, 2009, 80, .	2.9	5

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73	High-spin yrast structure of ^{159}Ho . Physical Review C, 2011, 84, .	2.9	5
74	First observation of excited states of ^{173}Hg . Physical Review C, 2012, 85, .	2.9	5
75	High-spin states beyond the proton drip-line: Quasiparticle alignments in ^{113}Cs . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 740, 243-249.	4.1	5
76	Isomer spectroscopy in ^{254}No . Physica Scripta, 2006, T125, 73-77.	2.5	4
77	Identification of the ^{109}Xe and ^{105}Te β^{\pm} -decay chain. European Physical Journal: Special Topics, 2007, 150, 131-134.	2.6	4
78	Excited states in the proton-unbound nuclide ^{158}Ta . Physical Review C, 2016, 93, .	2.9	4
79	Early onset of deformation in the neutron-deficient polonium isotopes. Journal of Physics: Conference Series, 2012, 381, 012072.	0.4	3
80	Competing Decay Modes of a High-spin Isomer in the Proton-unbound Nucleus ^{158}Ta . Acta Physica Polonica B, 2015, 46, 695.	0.8	2
81	Experimental assessment of effectively probed volume in confocal XRF spectrometry using microparticles. X-Ray Spectrometry, 2019, 48, 553-560.	1.4	2
82	Reinvestigation of the excited states in the proton emitter ^{151}Lu : Particle-hole excitations across the $N=Z=64$ subshell. Physical Review C, 2017, 96, .	2.9	1
83	The Effect of Radiation Damage on the Charge Collection Efficiency of Silicon Avalanche Photodiodes. IEEE Transactions on Nuclear Science, 2022, 69, 152-159.	2.0	1
84	Collectivity in neutron-deficient Pb and Po nuclei. European Physical Journal: Special Topics, 2007, 150, 121-122.	2.6	0
85	Decays of New Nuclides and Isomers Beyond the Proton Drip Line – The Influence of Neutron Configurations. , 2008, , .		0