

Anatoly Barzakh

List of Publications by Year in descending order

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115
papers

2,177
citations

236925

25
h-index

265206

42
g-index

117
all docs

117
docs citations

117
times ranked

1106
citing authors

#	ARTICLE	IF	CITATIONS
1	New Type of Asymmetric Fission in Proton-Rich Nuclei. Physical Review Letters, 2010, 105, 252502.	7.8	197
2	Characterization of the shape-staggering effect in mercury nuclei. Nature Physics, 2018, 14, 1163-1167.	16.7	106
3	Storage ring at HIE-ISOLDE. European Physical Journal: Special Topics, 2012, 207, 1-117.	2.6	101
4	Early Onset of Ground State Deformation in Neutron Deficient Polonium Isotopes. Physical Review Letters, 2011, 106, 052503.	7.8	94
5	Towards high-resolution laser ionization spectroscopy of the heaviest elements in supersonic gas jet expansion. Nature Communications, 2017, 8, 14520.	12.8	90
6	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
7	Charge radii and magnetic moments of odd- A $^{183-189}\text{Pb}$ isotopes. European Physical Journal A, 2009, 41, 315-321.	2.5	60
8	Nuclear electromagnetic moments and charge radii of deformed thulium isotopes with the mass numbers $A = 157\text{--}172$. Nuclear Physics A, 1988, 477, 37-54.	1.5	56
9	A new highly efficient method of atomic spectroscopy for nuclides far from stability. Nuclear Instruments & Methods in Physics Research B, 1992, 69, 517-520.	1.4	53
10	Electromagnetic moments of odd- A ^{193}Po isotopes. Nuclear Instruments & Methods in Physics Research B, 2014, 289, 1-5.	2.9	51
11	Atomic lines isotope shifts of short-lived radioactive Eu studied by high-sensitive laser resonance photoionization method in Xe -line experiments with proton beams. Optics Communications, 1984, 52, 24-28.	2.1	47
12	New developments of the in-source spectroscopy method at RILIS/ISOLDE. Nuclear Instruments & Methods in Physics Research B, 2013, 317, 550-556.	1.4	47
13	Shape coexistence in ^{180}Hg studied through the I^2 decay of ^{180}Tl . Physical Review C, 2011, 84, .	2.9	46
14	Nuclear deformation of holmium isotopes. Nuclear Physics A, 1989, 504, 549-561.	1.5	43
15	Shape staggering of midshell mercury isotopes from in-source laser spectroscopy compared with density-functional-theory and Monte Carlo shell-model calculations. Physical Review C, 2019, 99, .	2.9	43
16	Delayed fission of ^{180}Tl . Physical Review C, 2013, 88, .	2.9	41
17	Hyperfine structure anomaly and magnetic moments of neutron deficient Tl isomers with $Z=81$. Physical Review C, 2012, 86, .	2.9	39
18	Changes in the mean-square charge radii and magnetic moments of neutron-deficient Tl isotopes. Physical Review C, 2013, 88, .	2.9	39

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19	Evolution of fission-fragment mass distributions in the neutron-deficient lead region. Physical Review C, 2014, 90. Laser Spectroscopy of Neutron-Rich Hg	2.9	39
20	Isotopes: Illuminating the Kink and Odd-Even Staggering in Charge Radii across the enlarged range of neutron magic numbers N	2.9	37
21	Experimental study of the charge radii of At isotopes. Physical Review C, 2018, 97, .	2.9	35
22	Laser spectroscopic studies of nuclei with neutron number $N < 82$ (Eu, Sm and Nd isotopes). Journal of Physics G: Nuclear and Particle Physics, 1992, 18, 1177-1193.	3.6	33
23	Mean square charge radii of the neutron-deficient rare-earth isotopes in the region of the nuclear shell $N=82$ measured by the laser ion source spectroscopy technique. Physical Review C, 2000, 61, .	2.9	31
24	In-gas laser ionization and spectroscopy of actinium isotopes near the $N=126$ closed shell. Physical Review C, 2017, 96, .	2.9	27
25	Large Shape Staggering in Neutron-Deficient Bi Isotopes. Physical Review Letters, 2021, 127, 192501.	7.8	27
26	β -delayed fission and β -decay of Tl	2.9	24
27	Hyperfine anomaly in gold and magnetic moments of Tl gold isomers. Physical Review C, 2020, 101, .	2.9	24
28	Changes in mean-squared charge radii and magnetic moments of Tl measured by in-source laser spectroscopy. Physical Review C, 2017, 95, .	2.9	23
29	Nuclear spins, magnetic moments and β -decay spectroscopy of long-lived isomeric states in ^{185}Pb . European Physical Journal A, 2002, 14, 63-75.	2.5	22
30	Change in structure between the β^- states in ^{181}Tl and $^{177,179}\text{Au}$. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 786, 355-363.	4.1	22
31	Search for octupole-deformed actinium isotopes using resonance ionization spectroscopy. Physical Review C, 2019, 100, .	2.9	22
32	Structure of ^{191}Pb from β^- - and β^+ -decay spectroscopy. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 125103.	3.6	20
33	Production of Cs and Fr isotopes from a high-density UC targets with different grain dimensions. European Physical Journal A, 2009, 42, 495.	2.5	19
34	In-Source Laser Spectroscopy with the Laser Ion Source and Trap: First Direct Study of the Ground-State Properties of Po	8.9	18
35	A mass-separator laser ion source. Nuclear Instruments & Methods in Physics Research B, 1997, 126, 85-87.	1.4	17
36	New laser setup for the selective isotope production and investigation in a laser ion source at the IRIS (Investigation of Radioactive Isotopes on Synchrocyclotron) facility. Review of Scientific Instruments, 2012, 83, 02B306.	1.3	17

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37	Laser spectroscopy studies of intruder states in ^{193}Bi . <i>Physical Review C</i> , 2016, 94, .	2.9	17
38	Shell effect in the mean square charge radii and magnetic moments of bismuth isotopes near N=126. <i>Physical Review C</i> , 2018, 97, .	2.9	15
39	Investigation of the release properties of MeCx targets at IRIS. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1997, 126, 150-153.	1.4	14
40	High temperature ion sources with ion confinement. <i>Review of Scientific Instruments</i> , 2002, 73, 738-740.	1.3	14
41	On-line production of Rb and Cs isotopes from uranium carbide targets. <i>European Physical Journal A</i> , 2005, 23, 257-264.	2.5	14
42	Resonance photoionization spectroscopy and laser separation of ^{141}Sm and ^{164}Tm nuclear isomers. <i>Optics Communications</i> , 1987, 61, 383-386.	2.1	13
43	Proton- and neutron-induced fission on uranium carbide target. <i>European Physical Journal A</i> , 2004, 19, 341-345.	2.5	13
44	^{179}Tl -decay spectroscopy of the chain ^{179}Tl . <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2017, 44, 074001.	2.9	13
45	Shape coexistence studied in $^{182,184}\text{Hg}$ via the i^2 decay of $^{182,184}\text{Tl}$. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2017, 44, 074001.	3.6	13
46	Onset of deformation in neutron-deficient Bi isotopes studied by laser spectroscopy. <i>Physical Review C</i> , 2017, 95, .	2.9	13
47	Inverse odd-even staggering in nuclear charge radii and possible octupole collectivity in $^{217,218,219}\text{At}$ revealed by in-source laser spectroscopy. <i>Physical Review C</i> , 2019, 99, .	2.9	13
48	Production of neutron rich nuclides from uranium carbide targets of different density. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003, 204, 267-271.	1.4	12
49	Penning-trap mass spectrometry and mean-field study of nuclear shape coexistence in the neutron-deficient lead region. <i>Physical Review C</i> , 2017, 95, .	2.9	12
50	Production of neutron-rich isotopes by one- and two-step processes in ISOL targets. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2002, 194, 193-206.	1.4	11
51	Studies of uranium carbide targets of a high density. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2008, 266, 4247-4251.	1.4	11
52	Relativistic Fock space coupled-cluster study of bismuth electronic structure to extract the Bi nuclear quadrupole moment. <i>Physical Review C</i> , 2021, 104, .	2.9	11
53	Isotonic and isobaric dependencies of nuclear charge radii for rare-earth nuclei. <i>Zeitschrift für Physik A</i> , 1993, 346, 265-268.	0.9	10
54	Absolute branching intensities in the decay of ^{92}Rb to ^{92}Sr . <i>Physical Review C</i> , 2006, 74, .	2.9	10

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55	\hat{I}_{\pm} -decay study of $\text{}^{182,184}\text{Tl}$. Journal of Physics G: Nuclear and Particle Physics, 2016, 43, 025102.	3.6	10
56	\hat{I}_{\pm} -delayed fission and \hat{I}_{\pm} decay of $\text{}^{196}\text{At}$.	2.9	10
57	Calculation of Francium Hyperfine Anomaly. Atoms, 2018, 6, 39.	1.6	10
58	\hat{I}_{\pm} -decay properties of $\text{}^{200}\text{Fr}$.	2.9	10
59	Laser-assisted decay spectroscopy for the ground states of $\text{}^{202}\text{Au}$.	2.9	10
60	Detailed spectroscopy of doubly magic $\text{}^{182}\text{Sn}$.	2.9	10
61	Charge radii, moments, and masses of mercury isotopes across the $N=126$ shell closure. Physical Review C, 2021, 104, .		
62	Laser spectroscopic studies of $\text{}^{145}\text{Gd}$, $\text{}^{145m}\text{Gd}$, and $\text{}^{143m}\text{Gd}$. Physical Review C, 2005, 72, .	2.9	9
63	\hat{I}_{\pm} decay of $\text{}^{133}\text{In}$: \hat{I}_{\pm} emission from neutron-unbound states in $\text{}^{133}\text{Sn}$. Physical Review C, 2019, 99, .	2.9	9
64	Hyperfine structure and isotope shift investigations of $\text{}^{145}\text{Pm}$ and $\text{}^{147}\text{Pm}$. Journal of Physics B: Atomic, Molecular and Optical Physics, 1992, 25, 571-576.	1.5	8
65	Application of the laser ion source for isotope shift and hyperfine structure investigation. , 2000, 127, 425-430.		8
66	Development of high temperature targets at IRIS facility. Nuclear Physics A, 2002, 701, 470-475.	1.5	8
67	Changes in the mean square charge radii of neutron-deficient europium isotopes measured by the laser ion source resonance ionization spectroscopy. European Physical Journal A, 2004, 22, 69-74.	2.5	8
68	Laser-assisted decay spectroscopy and mass spectrometry of $\text{}^{178}\text{Au}$.	2.9	8
69	CALCULATION OF THALLIUM HYPERFINE ANOMALY. RAD Association Journal, 2017, 2, .	0.0	8
70	Development of uranium carbide targets for the on-line production of neutron-rich isotopes. Nuclear Instruments & Methods in Physics Research B, 2005, 240, 888-894.	1.4	7
71	Combined target-ion source unit for production of rare nuclides. Review of Scientific Instruments, 2006, 77, 03A705.	1.3	7
72	Internal decay of the $\text{}^{184}\text{Tl}$ state in $\text{}^{184}\text{Tl}$.	2.9	7

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91	Early onset of deformation in the neutron-deficient polonium isotopes. Journal of Physics: Conference Series, 2012, 381, 012072.	0.4	3
92	In-source laser photoionization spectroscopy of Bi isotopes: accuracy of the technique and methods of data analysis. Hyperfine Interactions, 2020, 241, 1.	0.5	3
93	High temperature electron beam ion source for on-line production of isotopes of refractory elements. Review of Scientific Instruments, 2004, 75, 1634-1636.	1.3	2
94	Influence of decay in the target on the measurement of release times and release efficiency. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 4314-4317.	1.4	2
95	Shape evolution for neutron-deficient bismuth isotopes studied by resonance laser ionization spectroscopy. Physics of Particles and Nuclei, 2017, 48, 914-916.	0.7	2
96	In-source laser spectroscopy of dysprosium isotopes at the ISOLDE-RILIS. Nuclear Instruments & Methods in Physics Research B, 2020, 463, 472-475.	1.4	2
97	$\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mi} \rangle \text{Pt} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:mn} \rangle 180 \langle \text{mml:mn} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$. Physical Review C, 2020, 101,		2
98	Laser photoionization spectroscopy of rare-earth elements: New results on nuclear electromagnetic moments and charge radii of Eu, Gd and Tb isotopes. Hyperfine Interactions, 1990, 61, 1335-1338.	0.5	1
99	Enhancement of ionization efficiency of surface, electron bombardment and laser ion sources by axial magnetic field application. Review of Scientific Instruments, 2004, 75, 1585-1587.	1.3	1
100	Electron beam plasma ionizing target for the production of neutron-rich nuclides. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 4294-4297.	1.4	1
101	New laser setup at the IRIS facility. Magnetic moments and mean squared charge radii of neutron deficient Tl isotopes. Hyperfine Interactions, 2013, 216, 27-31.	0.5	1
102	High temperature uranium carbide targets. , 2003, , 495-495.		1
103	TARGET DEVELOPMENT FOR MEDICAL RADIONUCLIDES CU-67 AND SR-82 PRODUCTION. , 0, , .		1
104	Decay modes of the isomeric state in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 9 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle \langle \text{mml:msup} \rangle \langle \text{mml:mi} \rangle \text{Tl} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:mn} \rangle 183 \langle \text{mml:mn} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$. Physical Review C, 2022, 105,	2.9	1
105	Application of the laser ion source for isotope shift and hyperfine structure investigations. , 1998, , .		0
106	Target-ion source unit ionization efficiency measurement by a method of stable ion beam implantation. European Physical Journal: Special Topics, 2007, 150, 301-302.	2.6	0
107	Changes in the mean square charge radii and electromagnetic moments of neutron-deficient Bi isotopes. AIP Conference Proceedings, 2015, , .	0.4	0
108	Target development for ${}^{67}\text{D}_{\mu}$, ${}^{82}\text{Sr}$ radionuclide production at the RIC-80 facility. Physics of Particles and Nuclei, 2018, 49, 75-77.	0.7	0

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109	A New Method for Production of the Sr-82 Generator Radionuclide and Other Medical Radionuclides. Technical Physics, 2018, 63, 1254-1261.	0.7	0
110	Highly efficient ion source for surface and laser ionization. Nuclear Instruments & Methods in Physics Research B, 2020, 463, 364-366.	1.4	0
111	Charge radius and electromagnetic moments of ^{153}Yb . , 2003, , 83-84.		0
112	Release and yields of lithium isotopes from high temperature targets. , 2003, , 480-480.		0
113	New laser setup at the IRIS facility. Magnetic moments and mean squared charge radii of neutron deficient Tl isotopes. , 2012, , 27-31.		0
114	Resonance Ionization Spectroscopy of Rare-Earth Elements at Iris Facility. NATO ASI Series Series B: Physics, 1992, , 81-86.	0.2	0
115	Producing gold at ISOLDE-CERN. Nuclear Instruments & Methods in Physics Research B, 2022, 513, 26-32.	1.4	0