

Gerda Neyens

List of Publications by Year in descending order

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59
papers

2,732
citations

172457

29
h-index

175258

52
g-index

60
all docs

60
docs citations

60
times ranked

1388
citing authors

#	ARTICLE	IF	CITATIONS
1	Unexpectedly large charge radii of neutron-rich calcium isotopes. Nature Physics, 2016, 12, 594-598.	16.7	257
2	Measurement of the Spin and Magnetic Moment of Mg31: Evidence for a Strongly Deformed Intruder Ground State. Physical Review Letters, 2005, 94, 022501.	7.8	164
3	Nuclear magnetic and quadrupole moments for nuclear structure research on exotic nuclei. Reports on Progress in Physics, 2003, 66, 633-689.	20.1	163
4	Nuclear Spins and Moments of Ga Isotopes Reveal Sudden Structural Changes between $N=40$ and $N=50$. Physical Review Letters, 2019, 122, 192502.	7.8	154
5	Inversion of ^{71}Cu and ^{73}Cu . Physical Review Letters, 2019, 122, 192502.	7.8	150
6	An ion cooler-buncher for high-sensitivity collinear laser spectroscopy at ISOLDE. European Physical Journal A, 2009, 42, 503-507.	2.5	94
7	Spin and Magnetic Moment of Mg33: Evidence for a Negative-Parity Intruder Ground State. Physical Review Letters, 2007, 99, 212501.	7.8	91
8	Nuclear spins, magnetic moments, and quadrupole moments of Cu isotopes from $N=28$ to $N=46$: Probes for core polarization effects. Physical Review C, 2010, 82, .	2.9	86
9	Laser Spectroscopy of Neutron-Rich Tin Isotopes: A Discontinuity in Charge Radii across the $N=82$ Shell Closure. Physical Review Letters, 2019, 122, 192502.	7.8	81
10	Charge radii of exotic potassium isotopes challenge nuclear theory and the magic character of $N=32$. Nature Physics, 2021, 17, 439-443.	16.7	79
11	Measurement and microscopic description of odd-even staggering of charge radii of exotic copper isotopes. Nature Physics, 2020, 16, 620-624.	16.7	76
12	Nuclear Charge Radii of ^{21}Mg and ^{32}Mg . Physical Review Letters, 2012, 108, 042504.	7.8	71
13	Collinear laser spectroscopy at ISOLDE: new methods and highlights. Journal of Physics G: Nuclear and Particle Physics, 2017, 44, 064002.	3.6	69
14	Precision Measurement of ^{11}Li Moments: Influence of Halo Neutrons on the ^{9}Li Core. Physical Review Letters, 2008, 101, 132501.	7.8	67
15	Collinear Resonance Ionization Spectroscopy of Neutron-Deficient Francium Isotopes. Physical Review Letters, 2013, 111, 212501.	7.8	63
16	Nuclear charge radii of potassium isotopes beyond $N=28$. Physical Review Letters, 2014, 731, 97-102.	4.1	63
17	Core. Physical Review Letters, 2018, 121, 102501.	7.8	57
18	Use of a Continuous Wave Laser and Pockels Cell for Sensitive High-Resolution Collinear Resonance Ionization Spectroscopy. Physical Review Letters, 2015, 115, 132501.	7.8	54

#	ARTICLE	IF	CITATIONS
19	Evaluation of the ground-state quadrupole moments of the (sd) nuclei. Atomic Data and Nuclear Data Tables, 2013, 99, 391-415.	2.4	51
20	Isomer Shift and Magnetic Moment of the Long-Lived ^{78}Zn Isomer in ^{78}Zn . Physical Review Letters, 2016, 116, 182502.	7.8	51
21	g factors of ^{31}Al , ^{32}Al , ^{33}Al : Indication for intruder configurations in the ^{33}Al ground state. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 643, 257-262.	4.1	42
22	Analysis of counting data: Development of the SATLAS Python package. Computer Physics Communications, 2018, 222, 286-294.	7.5	42
23	Dipole and quadrupole moments of ^{73}Cu as a test of the robustness of the ^{73}Cu charge radii. Physical Review C, 2016, 93, .	2.9	41
24	Ground-state electromagnetic moments of calcium isotopes. Physical Review C, 2015, 91, .	2.9	40
25	Cu charge radii reveal a weak sub-shell effect at $N=40$. Physical Review C, 2016, 93, .	2.9	36
26	Ground-state spins and moments of ^{72}Ni , ^{74}Ni , ^{76}Ni nuclei. Physical Review C, 2011, 84, .	2.9	32
27	Efficient, high-resolution resonance laser ionization spectroscopy using weak transitions to long-lived excited states. Physical Review A, 2017, 95, .	2.5	32
28	Evolution of nuclear structure in neutron-rich odd-Zn isotopes and isomers. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 771, 385-391.	4.1	30
29	Charge Radius of the Short-Lived ^{68}Ni and Correlation with the Dipole Polarizability. Physical Review Letters, 2020, 124, 132502.	7.8	30
30	Nuclear Moments. , 2006, , 135-189.		27
31	Nuclear Charge Radii of the Nickel Isotopes ^{70}Ni - ^{78}Ni . Physical Review C, 2012, 86, .	7.8	27
32	Nuclear mean-square charge radii of ^{63}Ni , ^{64}Ni , ^{66}Ni nuclei: No anomalous behavior at $N=32$. Physical Review C, 2012, 86, .	2.9	24
33	Structural trends in atomic nuclei from laser spectroscopy of tin. Communications Physics, 2020, 3, .	5.3	24
34	Changes in nuclear structure along the Mn isotopic chain studied via charge radii. Physical Review C, 2016, 94, .	2.9	23
35	Nuclear charge radii of ^{62}Zn - ^{80}Zn and their dependence on cross-shell proton excitations. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 797, 134805.	4.1	23
36	Isotope Shifts of Radium Monofluoride Molecules. Physical Review Letters, 2021, 127, 033001.	7.8	23

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37	Precision measurements of the charge radii of potassium isotopes. <i>Physical Review C</i> , 2019, 100, .	2.9	22
38	Nuclear moments of indium isotopes reveal abrupt change at magic number 82. <i>Nature</i> , 2022, 607, 260-265.	27.8	22
39	Simulation of the relative atomic populations of elements $1\hat{\text{a}}\hat{\text{e}}\hat{\text{a}}\hat{\text{Z}}\hat{\text{a}}\hat{\text{e}}\hat{\text{a}}\hat{\text{89}}$ following charge exchange tested with collinear resonance ionization spectroscopy of indium. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2019, 153, 61-83.	2.9	21
40	Analytic response relativistic coupled-cluster theory: the first application to indium isotope shifts. <i>New Journal of Physics</i> , 2020, 22, 012001.	2.9	21
41	Billion-fold Enhancement in Sensitivity of Nuclear Magnetic Resonance Spectroscopy for Magnesium Ions in Solution. <i>ChemPhysChem</i> , 2014, 15, 3929-3932.	2.1	19
42	High-Precision Multiphoton Ionization of Accelerated Laser-Ablated Species. <i>Physical Review X</i> , 2018, 8, .	8.9	17
43	High-resolution laser spectroscopy of Al . <i>Physical Review C</i> , 2021, 103, .	2.9	17
44	High-resolution laser spectroscopy with the Collinear Resonance Ionisation Spectroscopy (CRIS) experiment at CERN-ISOLDE. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2016, 376, 284-287.	1.4	16
45	Probing the ground-state properties in the region near Ca with high-resolution laser spectroscopy. <i>Physical Review C</i> , 2017, 96, .	2.9	15
46	High-precision quadrupole moment reveals significant intruder component in $\text{Al}201333$ ground state. <i>Physical Review C</i> , 2016, 94, .	2.9	13
47	Optimising the Collinear Resonance Ionisation Spectroscopy (CRIS) experiment at CERN-ISOLDE. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2020, 463, 384-389.	1.4	13
48	Tin resonance-ionization schemes for atomic- and nuclear-structure studies. <i>Physical Review A</i> , 2020, 102, .	2.5	12
49	A new beamline for laser spin-polarization at ISOLDE. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2019, 925, 24-32.	1.6	10
50	Electromagnetic moments of scandium isotopes and $\text{Na}\hat{\text{e}}\hat{\text{a}}\hat{\text{28}}$ isotones in the distinctive $0f_{7/2}$ orbit. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2022, 829, 137064.	4.1	10
51	New laser polarization line at the ISOLDE facility. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2017, 44, 084005.	3.6	9
52	Investigating the large deformation of the isomeric state in Zn . <i>Physical Review C</i> , 2018, 97, .	2.9	9
53	Nuclear moments of the low-lying isomeric 1^+ state of 34Al : Investigation on the neutron $1p_{1h}$ excitation across $\text{Na}\hat{\text{e}}\hat{\text{a}}\hat{\text{20}}$ in the island of inversion. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2018, 782, 619-626.	4.1	8
54	Doubly-magic character of Sn moments of Sn studied via electromagnetic moments of Sn . <i>Physical Review C</i> , 2020, 102, .	2.9	8

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55	Resonance ionization schemes for high resolution and high efficiency studies of exotic nuclei at the CRIS experiment. Nuclear Instruments & Methods in Physics Research B, 2020, 463, 398-402.	1.4	7
56	Nuclear moments of germanium isotopes near $N=20$. Physical Review C, 2020, 102, 014301.	2.1	40
57	Nuclear moments of ^{132}Sn via electromagnetic moments of ^{132}Sb . Physical Review C, 2021, 103, 014301.	2.9	6
58	High-accuracy liquid-sample ^{12}C -NMR setup at ISOLDE. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 1020, 165862.	1.6	4
59	Magnetic Moments of Short-Lived Nuclei with Part-per-Million Accuracy: Toward Novel Applications of ^{12}C -Detected NMR in Physics, Chemistry, and Biology. Physical Review X, 2020, 10, .	8.9	2