Bradley Cheal

List of Publications by Year
in descending order

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82	2,491	172457	206112
papers	citations	29 h-index	48 g-index

83	83	83	1149
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nuclear Spins and Moments of Ca Isotopes Reveal Sudden Structural Changes between<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>N</mml:mi><mml:mo>=</mml:mo><mml:mn>40</mml:mn></mml:math>and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">Nuclear Spins and Magnetic Moments of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>N</mml:mi><mml:mo>=</mml:mo><mml:mn>50</mml:mn></mml:math>.	7.8	154
2	Nuclear Spins and Magnetic Moments of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi>Cu</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>71</mml:mn><mml:mo>,</mml:mo><mml:mn>73</mml:mn><mml:mo>,</mml:mo><mml:mn>75</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>: Inversion of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Ï€</mml:mi><mml:msub><mml:mi>p</mml:mi><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:math>	7.8	150
3	Progress in laser spectroscopy at radioactive ion beam facilities. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 113101.	3.6	147
4	Atom-at-a-time laser resonance ionization spectroscopy of nobelium. Nature, 2016, 538, 495-498.	27.8	103
5	An ion cooler-buncher for high-sensitivity collinear laser spectroscopy at ISOLDE. European Physical Journal A, 2009, 42, 503-507.	2.5	94
6	The shape transition in the neutron-rich yttrium isotopes and isomers. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 645, 133-137.	4.1	92
7	Laser Spectroscopy of Niobium Fission Fragments: First Use of Optical Pumping in an Ion Beam Cooler Buncher. Physical Review Letters, 2009, 102, 222501.	7.8	88
8	Nuclear spins, magnetic moments, and quadrupole moments of Cu isotopes fromN=28toN=46: Probes for core polarization effects. Physical Review C, 2010, 82, .	2.9	86
9	Nuclear charge radii of molybdenum fission fragments. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 674, 23-27.	4.1	83
10	Laser Spectroscopy of Neutron-Rich Tin Isotopes: A Discontinuity in Charge Radii across the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>N</mml:mi><mml:mo>=</mml:mo><mml:mn>82</mml:mn></mml:math> Shell Closure. Physical Review Letters, 2019, 122, 192502.	7.8	81
11	Collinear laser spectroscopy at ISOLDE: new methods and highlights. Journal of Physics G: Nuclear and Particle Physics, 2017, 44, 064002.	3.6	69
12	Laser spectroscopy of radioactive isotopes: Role and limitations of accurate isotope-shift calculations. Physical Review A, 2012, 86, .	2.5	65
13	Probing Sizes and Shapes of Nobelium Isotopes by Laser Spectroscopy. Physical Review Letters, 2018, 120, 232503.	7.8	63
14	From Calcium to Cadmium: Testing the Pairing Functional through Charge Radii Measurements of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Cd</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>100</mml:mn><mml:mtext>â^'</mml:mtext><mml:mn>130</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>. Physical Review Letters, 2018, 121, 102501.	7.8	57
15	Precision Measurement of the First Ionization Potential of Nobelium. Physical Review Letters, 2018, 120, 263003.	7.8	56
16	Ground state properties of manganese isotopes across the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mi>N</mml:mi><mml:mo>=</mml:mo><mml:mn>28</mml:mn></mml:math> shell closure. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 690, 346-351.	4.1	53
17	Isomer in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>1</mml:mn><mml:mo stretchy="false">]</mml:mo><mml:msup><mml:mn>2</mml:mn><mml:mo>+</mml:mo></mml:msup></mml:math>Isomer in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:msub><mml:mrow><mml:mi>Zn</mml:mi></mml:mrow><mml:mrow><mml:mn>30</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:mmultiscripts></mml:math>. Physical Review Letters, 2016, 116, 182502.	7.8	51
18	Nuclear charge radii and electromagnetic moments of radioactive scandium isotopes and isomers. Journal of Physics G: Nuclear and Particle Physics, 2011, 38, 025104.	3.6	45

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19	Cu charge radii reveal a weak sub-shell effect atN=40. Physical Review C, 2016, 93, .	2.9	36
20	On the decrease in charge radii of multi-quasi particle isomers. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 645, 330-334.	4.1	35
21	Discovery of a long-lived low-lying isomeric state in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">Ga</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>80</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>. Physical Review C, 2019, 99, .	2.9	35
22	Magnetic and quadrupole moments of neutron deficient 58â€“62Cu isotopes. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 703, 34-39.	4.1	35
23	First Use of High-Frequency Intensity Modulation of Narrow-Linewidth Laser Light and Its Application in Determination of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi>Fr</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>206</mml:mn><mml:mo>,</mml:mo><mml:mn>205</mml:mn><mml:mo>,</mml:mo><mml:mn>204</mml: Preparation Physical Review Letters, 2018, 111, 132501.	7.8	34
24	Ground-state spins and moments of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mrow><mml:mn>72</mml:mn><mml:mo>,</mml:mo><mml:mn>74</mml:mn><mml:mo>,</mml:mo><mml:mn>76</mml:mn> nuclei. Physical Review C, 2011, 84, .	2.9	32
25	Simple Nuclear Structure in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Cd</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>111</mml:mn><mml:mo>â€“</mml:mo><mml:mn>129</mml:mn></mml:mrow></mml:mmultiscripts></mml: Atomic Isomer Shifts. Physical Review Letters, 2016, 116, 032501.	7.8	32
26	Experimental determination of anÏ€=2â^'ground state inCu72,74. Physical Review C, 2010, 82, .	2.9	30
27	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
28	Charge Radius of the Short-Lived <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Ni</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>68</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> and Correlation with the Dipole Polarizability. Physical Review Letters, 2020, 124, 132502.	7.8	30
29	Nuclear spin determination of100mY by collinear laser spectroscopy of optically pumped ions. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 105103.	3.6	29
30	Nuclear Charge Radii of the Nickel Isotopes <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Ni</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>58</mml:mn><mml:mo>â^'</mml:mo><mml:mn>68</mml:mn><mml:mo>,</mml:mo><mml:mn>70</mml:mn></mml:mr Physical Review Letters, 2022, 128, 022502.	7.8	27
31	Developments for resonance ionization laser spectroscopy of the heaviest elements at SHIP. Nuclear Instruments & Methods in Physics Research B, 2016, 383, 115-122.	1.4	26
32	Nuclear mean-square charge radii of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mrow><mml:mn>63</mml:mn><mml:mo>,</mml:mo><mml:mn>64</mml:mn><mml:mo>,</mml:mo><mml:mn>66</mml:mn></mml:mrow></mml:msup></mml:math> nuclei: No anomalous behavior at<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>N</mml:mi><mml:mo>=</mml:mo><mml:mn>32</mml:mn></mml:mrow></mml:math>. 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	Nuclear moments and charge radii of neutron-deficient francium isotopes and isomers. Physical Review C, 2015, 91, .	2.9	23
35	Changes in nuclear structure along the Mn isotopic chain studied via charge radii. Physical Review C, 2016, 94, .	2.9	23
36	Nuclear charge radii of 62â^'80Zn 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

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37	Isotope shifts from collinear laser spectroscopy of doubly charged yttrium isotopes. Physical Review A, 2018, 97, .	2.5	22
38	Quadrupole moments of odd-A 53â^'63 Mn: Onset of collectivity towards N = 40. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 760, 387-392.	4.1	21
39	Development of the CRIS (Collinear Resonant Ionisation Spectroscopy) beam line. Journal of Physics: Conference Series, 2012, 381, 012070.	0.4	19
40	High-resolution laser spectroscopy of long-lived plutonium isotopes. Physical Review A, 2017, 95, .	2.5	19
41	Upgrades to the collinear laser spectroscopy experiment at the IGISOL. Nuclear Instruments & Methods in Physics Research B, 2020, 463, 437-440.	1.4	19
42	Evidence of a sudden increase in the nuclear size of proton-rich silver-96. Nature Communications, 2021, 12, 4596.	12.8	19
43	Collinear laser spectroscopy of atomic cadmium. European Physical Journal D, 2015, 69, 1.	1.3	18
44	Evidence for Increased neutron and proton excitations between 51â^'63 Mn. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 750, 176-180.	4.1	17
45	High-resolution laser spectroscopy of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Al</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>27</mml:mn><mml:mo>â€“</mml:mo><mml:mn>32</mml:mn></mml:mrow></mml:mmultiscripts></mml:m Physical Review C, 2021, 103, .	2.9	17
46	Model independent determination of the spin of theTa180naturally occurring isomer. Physical Review C, 2006, 74, .	2.9	16
47	Direct observation of an isomeric state in 98Rb and nuclear properties of exotic rubidium isotopes measured by laser spectroscopy. European Physical Journal A, 2015, 51, 1.	2.5	15
48	Collinear laser spectroscopy of neutron-rich cerium isotopes near theN= 88 shape transition. Journal of Physics G: Nuclear and Particle Physics, 2003, 29, 2479-2484.	3.6	14
49	Nuclear moments, charge radii and spins of the ground and isomeric states in¹⁷⁵Yb and¹⁷⁷Yb. Journal of Physics G: Nuclear and Particle Physics, 2012, 39, 125101.	3.6	14
50	A new off-line ion source facility at IGISOL. Nuclear Instruments & Methods in Physics Research B, 2020, 463, 382-383.	1.4	13
51	Resonance ionization spectroscopy of bismuth at the IGISOL facility. Hyperfine Interactions, 2006, 171, 135-141.	0.5	12
52	Laser assisted decay spectroscopy at the CRIS beam line at ISOLDE. Journal of Physics: Conference Series, 2012, 381, 012128.	0.4	12
53	Investigation of the low-lying isomer in 229Th by collinear laser spectroscopy. Hyperfine Interactions, 2006, 171, 197-201.	0.5	11
54	Status of the LASER-IGISOL collaboration at the University of JyvÃskylÃ. Hyperfine Interactions, 2010, 196, 143-150.	0.5	11

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55	Spins and magnetic moments of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi>Mn</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>58</mml:mn><mml:mo>,</mml:mo><mml:mn>60</mml:mn><mml:mo>,</mml:mo><mml:mn>62</mml:mn></mml:m states and isomers. Physical Review C, 2015, 92, .	2.9	11
56	Laser spectroscopy of gallium isotopes beyondN= 50. Journal of Physics: Conference Series, 2012, 381, 012071.	0.4	10
57	Impact of buffer gas quenching on the 1S0Âà†'Â1P1 ground-state atomic transition in nobelium. European Physical Journal D, 2017, 71, 1.	1.3	10
58	Proton-neutron pairing correlations in the self-conjugate nucleus 42Sc. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 819, 136439.	4.1	10
59	Electromagnetic moments of scandium isotopes and Nâ€¯=â€¯28 isotones in the distinctive 0f7/2 orbit. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 829, 137064.	4.1	10
60	Impact of Nuclear Deformation and Pairing on the Charge Radii of Palladium Isotopes. Physical Review Letters, 2022, 128, 152501.	7.8	10
61	Nuclear charge radii and electromagnetic moments of scandium isotopes and isomers in the f7/2 shell. Hyperfine Interactions, 2006, 171, 209-215.	0.5	9
62	Investigating the large deformation of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>5</mml:mn><mml:mo>/</mml:mo><mml:msup><mml:m isomeric state in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Zn</mml:mi><mml:mprescripts /><mml:none /><mml:mn>73</mml:mn></mml:mmultiscripts></mml:math> : An indicator for triaxiality. Physical Review C, 2018, 97, .	2.9	9
63	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Sn</mml:mi><mml:mprescripts /><mml:none /><mml:mn>132</mml:mn></mml:mmultiscripts></mml:math> studied via electromagnetic moments of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Sn</mml:mi><mml:mprescripts /><mml:none /><mml:mn>132</mml:mn></mml:mmultiscripts></mml:math>. Physical Review C, 2020, 102, .	2.9	8
64	Nuclear moments of germanium isotopes near <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>N</mml:mi><mml:mo>=</mml:mo><mml:mn>40</mml:mn></mml:m Physical Review C, 2020, 102, .	2.9	6
65	Shape evolution and shape coexistence behavior above <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Sn</mml:mi><mml:mprescripts /><mml:none /><mml:mn>132</mml:mn></mml:mmultiscripts></mml:math> via electromagnetic moments of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Sb</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>133</mml:mn><mml:mo>,</mml:mo><mml:mn>134</mml:mn></mml:mrow></mml	2.9	6
66	Collinear laser spectroscopy techniques at JYFL. Hyperfine Interactions, 2014, 223, 63-71.	0.5	5
67	Physics highlights from laser spectroscopy at the IGISOL. Hyperfine Interactions, 2014, 223, 207-222.	0.5	5
68	Collinear laser spectroscopy at the new IGISOL 4 facility. Hyperfine Interactions, 2014, 223, 223-230.	0.5	4
69	Laser spectroscopy at IGISOL IV. Hyperfine Interactions, 2014, 227, 139-145.	0.5	4
70	Laser spectroscopy of radioactive Ti, Zr and Hf isotopes and isomers at the JYFL laser-IGISOL facility. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2003, 58, 1069-1076.	2.9	3
71	Collinear Laser Spectroscopy on Neutron-rich Mn Isotopes Approaching $N=40$. Acta Physica Polonica B, 2015, 46, 699.	0.8	3
72	Collinear laser spectroscopy of stable palladium isotopes at the IGISOL facility. Hyperfine Interactions, 2020, 241, 1.	0.5	3

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73	Laser pumping of ions in a cooler buncher. Hyperfine Interactions, 2008, 181, 107-110.	0.5	2
74	Laser spectroscopy with an electrostatic ConeTrap. Hyperfine Interactions, 2017, 238, 1.	0.5	1
75	Recent Advances in On-Line Laser Spectroscopy. Nuclear Physics News, 2015, 25, 12-18.	0.4	0
76	Laser pumping of ions in a cooler buncher. , 2008, , 627-630.		0
77	Status of the LASER-IGISOL collaboration at the University of JyvÃskylÃ. , 2010, , 143-150.		0
78	Collinear laser spectroscopy techniques at JYFL. , 2012, , 83-91.		0
79	Physics highlights from laser spectroscopy at the IGISOL. , 2012, , 271-286.		0
80	Collinear laser spectroscopy at the new IGISOL 4 facility. , 2012, , 287-294.		0
81	LASER SPECTROSCOPY OF EXOTIC NUCLEI AT ISOLDE AND JYFL. , 2013, , .		0
82	Laser Spectroscopic Studies of Fission Products and Nobelium. , 2017, , .		0