

## Erratum: Reinvestigation of the excited states in the proton emitter $^{151}\text{Lu}$ : Particle-hole excitations across the $N = Z = 64$ subshell [Phys. Rev. C **96**, 064307 (2017)]

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The aim of this Erratum is to update Table I in the original article in which inconsistent spin-parity assignments were presented for the 242-, 432-, 445-, 525-, 643-, 684-, 704-, and 848-keV  $\gamma$  transitions. The errors are corrected in the new Table I here. The uncertainties of the  $E_\gamma$  have been included as well. Figure 3, the discussions, and the conclusions in the original article remain valid.

TABLE I. Energies and relative intensities for  $\gamma$  transitions assigned to  $^{151}\text{Lu}$ . The relative intensity of the 612-keV transitions, feeding the ground state, is normalized to 100%.

$E_\gamma$ (keV)	$J_i^\pi$	$J_f^\pi$	$I_\gamma$ (%)
170.4(15)	(33/2 <sup>-</sup> )	(31/2 <sup>-</sup> )	10(3)
242.3(10)	(31/2 <sup>-</sup> )	(31/2 <sup>-</sup> )	8(4)
301.8(3)	(23/2 <sup>+</sup> )	(19/2 <sup>+</sup> )	44(2)
322.3(4)	(27/2 <sup>-</sup> )	(23/2 <sup>-</sup> )	35(2)
401.8(6)	(19/2 <sup>+</sup> )	(17/2 <sup>-</sup> )	39(2)
431.7(6)	(19/2 <sup>+</sup> )	(19/2 <sup>-</sup> )	30(2)
445.2(12)	(37/2 <sup>+</sup> )	(35/2 <sup>+</sup> )	9(5)
524.6(10)	(31/2 <sup>-</sup> )	(31/2 <sup>-</sup> )	10(3)
612.3(4)	(15/2 <sup>-</sup> )	11/2 <sup>-</sup>	100(2)
625.3(5)	(35/2 <sup>+</sup> )	(31/2 <sup>+</sup> )	29(2)
642.6(5)	(31/2 <sup>-</sup> )	(27/2 <sup>-</sup> )	32(2)
662.1(6)	(13/2 <sup>-</sup> )	11/2 <sup>-</sup>	29(2)
684.4(5)	(27/2 <sup>+</sup> )	(23/2 <sup>+</sup> )	39(3)
703.8(10)	(35/2 <sup>+</sup> )	(31/2 <sup>+</sup> )	15(3)
840.1(12)	(17/2 <sup>-</sup> )	(13/2 <sup>-</sup> )	35(4)
847.5(12)	(31/2 <sup>+</sup> )	(27/2 <sup>+</sup> )	33(4)
860.3(5)	(19/2 <sup>-</sup> )	(15/2 <sup>-</sup> )	87(3)
890.1(10)	(17/2 <sup>-</sup> )	(15/2 <sup>-</sup> )	20(3)
930.9(10)	(35/2 <sup>-</sup> )	(31/2 <sup>-</sup> )	14(5)
950.3(6)	(23/2 <sup>-</sup> )	(19/2 <sup>-</sup> )	44(3)

TABLE II. The reduced transition probabilities for the 302-, 322-, and 612-keV transitions in  $^{151}\text{Lu}$  under different multipolarity assumptions; the small-space shell model results for  $E2$  transitions are also listed.

$E_\gamma$ /keV	Lifetime (ps)	$B(M1)\downarrow$ [Weisskopf unit (W.u.)]		$B(E2)\downarrow$ ( $e^2 \text{ fm}^4$ )		$B(E2)_{\text{theo}}$ ( $e^2 \text{ fm}^4$ )		$B(E1)\downarrow$ ( $e^2 \text{ fm}^2$ )	$B(E1)\downarrow$ (W.u.)
		$B(M1)\downarrow(\mu_N^2)$	unit (W.u.)	$B(E2)\downarrow(e^2 \text{ fm}^4)$	$B(E2)\downarrow(\text{W.u.})$	$B(E2)_{\text{theo}}$ ( $e^2 \text{ fm}^4$ )	$B(E1)\downarrow(e^2 \text{ fm}^2)$		
302	290(90)	$7.1(22)\times 10^{-3}$	$4.0(12)\times 10^{-3}$	1125(349)	23(7)	265	$7.9(24)\times 10^{-5}$	$4.3(13)\times 10^{-5}$	
322	160(20)	$1.0(1)\times 10^{-2}$	$6.0(7)\times 10^{-3}$	1480(184)	31(34)	1712	$1.1(1)\times 10^{-4}$	$6.4(8)\times 10^{-5}$	
612	7.4(42)	$3.3(19)\times 10^{-2}$	$1.9(10)\times 10^{-2}$	1290(732)	27(15)	1508	$3.7(21)\times 10^{-4}$	$2.0(11)\times 10^{-4}$	

Moreover, in the caption of the original Fig. 3 it said that “The half-lives for the  $(15/2^-)$ ,  $(27/2^-)$ , and  $(23/2^+)$  states . . . .” According to Ref. [1], we would like to clarify that 7.4(42) ps corresponds to the weighted average lifetimes for the  $(15/2^-)$  state, and 160(20) and 290(90) ps are the effective lifetimes for the  $(27/2^-)$  and  $(23/2^+)$  states, respectively. Accordingly, in the original table, the heading “half-life (ps)” should be modified as “Lifetime (ps).” The new Table II is updated here. All the related discussions remain valid.

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- [1] M. Procter, D. Cullen, M. Taylor, G. Alharshan, L. Ferreira, E. Maglione, K. Auranen, T. Grahn, P. Greenlees, U. Jakobsson, R. Julin, A. Herzáň, J. Konki, M. Leino, J. Pakarinen, J. Partanen, P. Peura, P. Rahkila, P. Ruotsalainen, M. Sandzelius, J. Sarén, S. Stolze, C. Scholey, J. Sorri, J. Uusitalo, T. Braunroth, E. Ellinger, A. Dewald, D. Joss, C. McPeake, and B. Saygi, *Phys. Lett. B* **725**, 79 (2013).