

Erratum: Spectroscopy of ^{157}Yb and structure evolutions in odd- A Yb isotopes
[Phys. Rev. C 87, 034325 (2013)]

C. Xu, H. Hua, X. Q. Li, S. Q. Zhang, J. Meng, Z. H. Li, F. R. Xu, Y. Y. Cheng, C. He, J. J. Sun, Y. Shi, H. L. Liu, Z. Y. Li, L. H. Zhu, X. G. Wu, G. S. Li, C. Y. He, Y. Zheng, S. G. Zhou, S. Y. Wang, Y. L. Ye, D. X. Jiang, T. Zheng, J. L. Lou, L. Y. Ma, E. H. Wang, L. L. Wang, and B. Zhang



(Received 14 March 2023; published 6 April 2023)

DOI: [10.1103/PhysRevC.107.049901](https://doi.org/10.1103/PhysRevC.107.049901)

In the original article, we determined the level energies through the energies of strong transitions. The energies of the relatively weak and linking transitions were deduced to be the differences between the initial and the final states, resulting in a χ^2 of almost zero. In this erratum, the energies of all γ transitions have been changed to their measured values from the fitting of our data. The corrected versions of level scheme (Fig. 1), and table of dominant configurations (Table I), are shown below.

Everywhere in the text where our original paper specified transition energies, these should now be replaced by the corresponding ones in Fig. 1.

The conclusions of the original article are not affected.

The same set of data for ^{157}Yb also appears in another paper Ref. [1] by our group. These data have been similarly corrected by an Erratum of that paper [2].

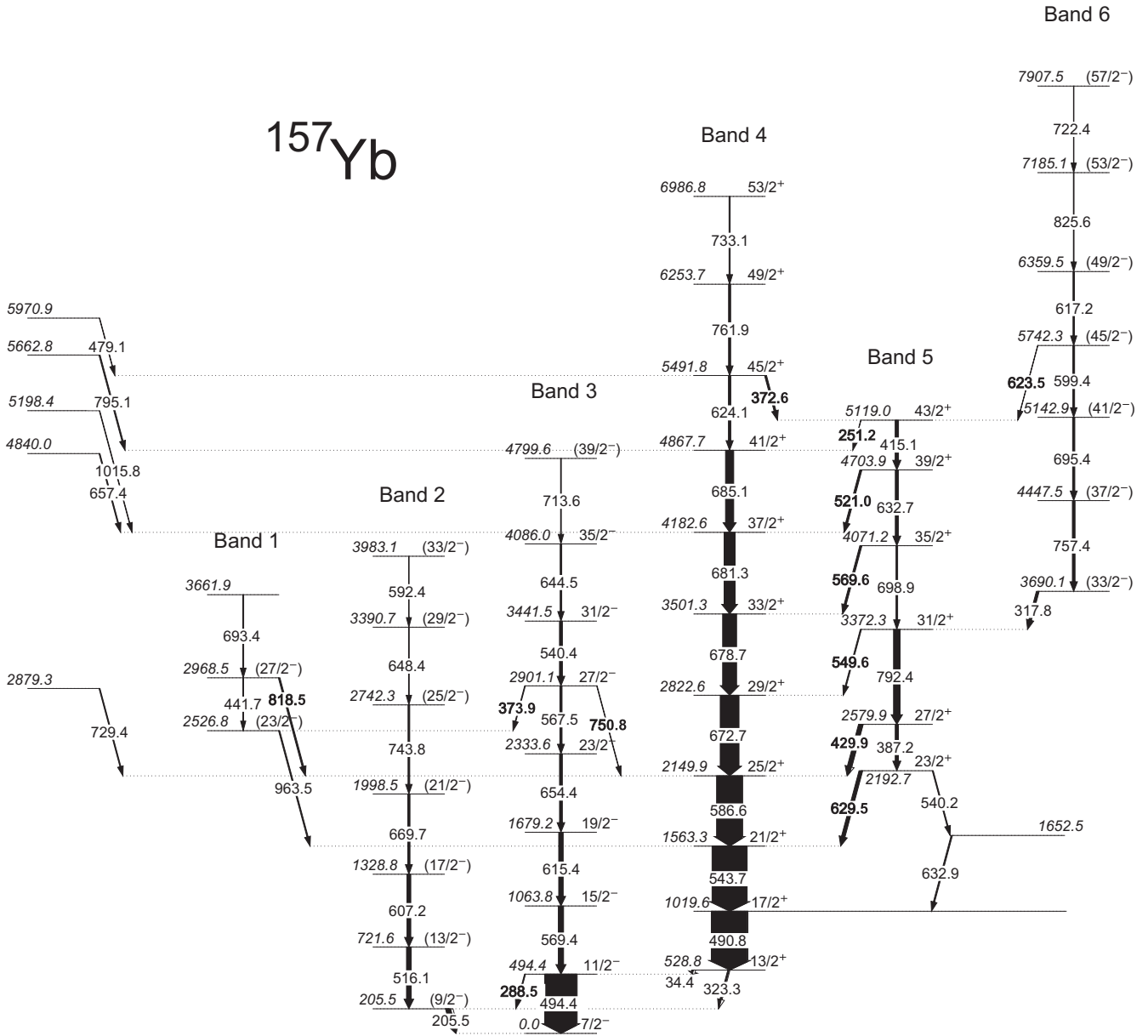


FIG. 1. Partial level scheme of ^{157}Yb . Energies are in keV. The energies which are updated in this erratum are marked in bold.

TABLE I. γ -ray energies, excitation energies, relative γ -ray intensities, and DCO ratios in ^{157}Yb .

E_γ (keV) ^{a,b}	E_i (keV)	E_f (keV)	Int. (%)	DCO ratio	The γ -ray gate for DCO ratio (keV)	Assignment
205.5	205.5	0.0	13.9(2)	0.82(4)	516.1	$(9/2^-) \rightarrow 7/2^-$
251.2	5119.0	4867.7	0.8(1)			$43/2^+ \rightarrow 41/2^+$
288.5	494.4	205.5	2.3(2)	0.90(9)	490.8	$11/2^- \rightarrow (9/2^-)$
317.8	3690.1	3372.3	7.4(3)	0.59(3)	490.8	$(33/2^-) \rightarrow 31/2^+$
323.3	528.8	205.5	4.0(2)	0.84(9)	490.8	$13/2^+ \rightarrow (9/2^-)$
372.6	5491.8	5119.0	4.9(4)	0.96(6)	490.8	$45/2^+ \rightarrow 43/2^+$
373.9	2901.1	2526.8	2.0(2)	1.05(43)	644.5	$27/2^- \rightarrow (23/2^-)$
387.2	2579.9	2192.7	8.6(2)	1.00(6)	490.8	$27/2^+ \rightarrow 23/2^+$
415.1	5119.0	4703.9	9.0(2)	1.00(5)	490.8	$43/2^+ \rightarrow 39/2^+$
429.9	2579.9	2149.9	11.9(3)	0.98(4)	490.8	$27/2^+ \rightarrow 25/2^+$
441.7	2968.5	2526.8	0.9(2)			$(27/2^-) \rightarrow (23/2^-)$
479.1	5970.9	5491.8	1.2(2)			
490.8	1019.6	528.8	100	1.06(2)	494.4	$17/2^+ \rightarrow 13/2^+$
494.4	494.4	0.0	88.7(4)	1.06(2)	543.7	$11/2^- \rightarrow 7/2^-$
516.1	721.6	205.5	13.0(2)	1.09(5)	607.2	$(13/2^-) \rightarrow (9/2^-)$
521.0	4703.9	4182.6	5.5(1)	0.65(9)	490.8	$39/2^+ \rightarrow 37/2^+$
540.2	2192.7	1652.5	2.7(7)			
540.4	3441.5	2901.1	8.0(6)	0.97(7)	615.4	$31/2^- \rightarrow 27/2^-$
543.7	1563.3	1019.6	96.3(22)	1.04(1)	490.8	$21/2^+ \rightarrow 17/2^+$
549.6	3372.3	2822.6	3.0(1)	0.69(8)	543.7	$31/2^+ \rightarrow 29/2^+$
567.5	2901.1	2333.6	6.0(8)	0.95(7)	654.4	$27/2^- \rightarrow 23/2^-$
569.4	1063.8	494.4	14.4(16)	1.08(5)	654.4	$15/2^- \rightarrow 11/2^-$
569.6	4071.2	3501.3	5.6(6)	0.78(10)	490.8	$35/2^+ \rightarrow 33/2^+$
586.6	2149.9	1563.3	71.6(20)	1.02(2)	490.8	$25/2^+ \rightarrow 21/2^+$
592.4	3983.1	3390.7	0.6(1)			$(33/2^-) \rightarrow (29/2^-)$
599.4	5742.3	5142.9	4.8(3)	1.03(6)	757.4	$(45/2^-) \rightarrow (41/2^-)$
607.2	1328.8	721.6	10.5(4)	0.94(5)	516.1	$(17/2^-) \rightarrow (13/2^-)$
615.4	1679.2	1063.8	12.3(10)	1.03(5)	654.4	$19/2^- \rightarrow 15/2^-$
617.2	6359.5	5742.3	3.9(2)	0.96(9)	757.4	$(49/2^-) \rightarrow (45/2^-)$
623.5	5742.3	5119.0	0.9(1)			$(45/2^-) \rightarrow 43/2^+$
624.1	5491.8	4867.7	6.5(4)	0.96(7)	490.8	$45/2^+ \rightarrow 41/2^+$
629.5	2192.7	1563.3	9.7(2)	0.83(10)	490.8	$23/2^+ \rightarrow 21/2^+$
632.7	4703.9	4071.2	8.4(1)	0.98(6)	543.7	$39/2^+ \rightarrow 35/2^+$
632.9	1652.5	1019.6	3.5(1)			
644.5	4086.0	3441.5	4.2(2)	1.08(7)	654.4	$35/2^- \rightarrow 31/2^-$
648.4	3390.7	2742.3	1.9(2)	1.25(12)	607.2	$(29/2^-) \rightarrow (25/2^-)$
654.4	2333.6	1679.2	7.8(3)	1.03(7)	615.4	$23/2^- \rightarrow 19/2^-$
657.4	4840.0	4182.6	2.6(4)			
669.7	1998.5	1328.8	6.0(4)	1.11(6)	607.2	$(21/2^-) \rightarrow (17/2^-)$
672.7	2822.6	2149.9	51.8(9)	0.93(2)	490.8	$29/2^+ \rightarrow 25/2^+$
678.7	3501.3	2822.6	38.5(8)	1.02(9)	490.8	$33/2^+ \rightarrow 29/2^+$
681.3	4182.6	3501.3	30.4(7)	1.10(11)	543.7	$37/2^+ \rightarrow 33/2^+$
685.1	4867.7	4182.6	22.6(4)	1.04(11)	543.7	$41/2^+ \rightarrow 37/2^+$
693.4	3661.9	2968.5	2.6(4)			
695.4	5142.9	4447.5	6.1(5)	1.06(6)	757.4	$(41/2^-) \rightarrow (37/2^-)$
698.9	4071.2	3372.3	4.5(5)	1.02(7)	543.7	$35/2^+ \rightarrow 31/2^+$
713.6	4799.6	4086.0	2.0(8)			$(39/2^-) \rightarrow 35/2^-$
722.4	7907.5	7185.1	1.2(1)			$(57/2^-) \rightarrow (53/2^-)$
729.4	2879.3	2149.9	2.6(1)			
733.1	6986.8	6253.7	3.1(1)	1.07(12)	672.7	$53/2^+ \rightarrow 49/2^+$
743.8	2742.3	1998.5	4.7(3)	0.95(7)	607.2	$(25/2^-) \rightarrow (21/2^-)$
750.8	2901.1	2149.9	1.3(1)			$27/2^- \rightarrow 25/2^+$
757.4	4447.5	3690.1	7.4(2)	1.04(7)	543.7	$(37/2^-) \rightarrow (33/2^-)$
761.9	6253.7	5491.8	5.8(2)	0.99(9)	672.7	$49/2^+ \rightarrow 45/2^+$

TABLE I. (*Continued.*)

E_γ (keV) ^{a,b}	E_i (keV)	E_f (keV)	Int. (%)	DCO ratio	The γ -ray gate for DCO ratio (keV)	Assignment
792.4	3372.3	2579.9	18.0(3)	0.97(5)	543.7	$31/2^+ \rightarrow 27/2^+$
795.1	5662.8	4867.7	3.2(1)			
818.5	2968.5	2149.9	4.3(1)	0.61(29)	543.7	$(27/2^-) \rightarrow 25/2^+$
825.6	7185.1	6359.5	1.8(1)			$(53/2^-) \rightarrow (49/2^-)$
963.5	2526.8	1563.3	3.2(1)	0.61(37)	543.7	$(23/2^-) \rightarrow 21/2^+$
1015.8	5198.4	4182.6	1.4(1)			

^aUncertainties between 0.1 and 0.5 keV.

^bThe energies which are updated in this erratum are marked in bold.

The authors would like to thank the data scientists at the National Nuclear Data Center for checking the data for consistency.

[1] C. Xu *et al.*, *Phys. Rev. C* **83**, 014318 (2011).

[2] C. Xu *et al.*, *Phys. Rev. C* **107**, 039903(E) (2023).