

Erratum: High spin states in $^{151,153}\text{Pr}$, ^{157}Sm , and ^{93}Kr [Phys. Rev. C 82, 034308 (2010)]

E. H. Wang , J. K. Hwang, A. V. Ramayya, J. H. Hamilton, S. H. Liu, N. T. Brewer, Y. X. Luo, J. O. Rasmussen, S. J. Zhu, and R. Donangelo



(Received 12 June 2025; published 20 August 2025)

DOI: [10.1103/n3rj-8864](https://doi.org/10.1103/n3rj-8864)

We report several corrections to the original paper.

In our original publication we published level schemes of $^{151,153}\text{Pr}$ and we determined level energies based on certain transitions and subsequently adjusted the raw data for other transitions to fit those energies. This is not correct scientific procedure as it alters original data, and it risks introducing incorrect transition and level energies into the literature. The main purpose of this Erratum is to provide the original data.

In this Erratum, the new level schemes of $^{151,153}\text{Pr}$ are shown in Figs. 1 and 2, accompanied by their new transition energies listed in Tables I and II. An energy recalibration was applied as in Refs. [1,2], resulting in numerical adjustments. Everywhere in the text where our original paper specified transition or level energies, these should be replaced by the corresponding correct energies in Tables I and II of the present Erratum.

(1)

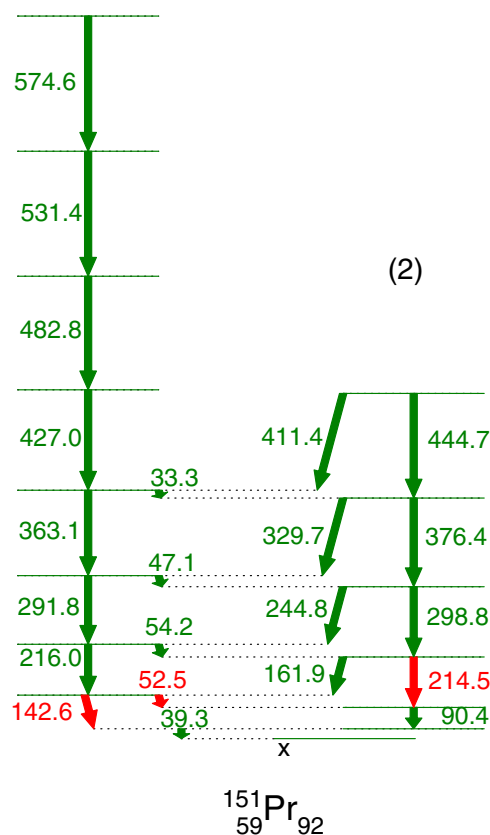


FIG. 1. Level scheme of ^{151}Pr . Energies are given in keV. The level scheme is normalized to an unknown x keV. This figure is revised from Ref. [2].

(1)

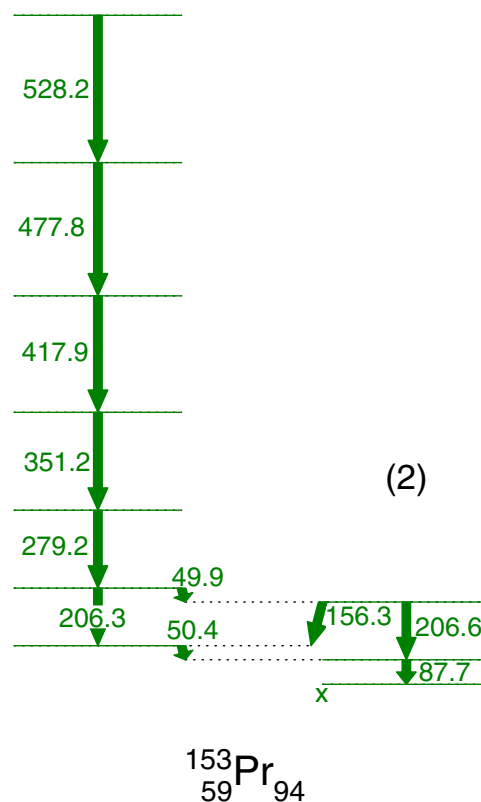


FIG. 2. Level scheme of ^{153}Pr . Energies are given in keV. The level scheme is normalized to an unknown x keV. This figure is revised from Ref. [2].

TABLE I. List of the γ -ray transition energies in keV in ^{151}Pr . The values are taken from Ref. [2]. The old energy values from the original paper are also listed for comparison. All the levels are normalized to an unknown x keV.

E_γ (keV)	
Original	New
33.3	33.3
41.9	39.3
47.2	47.1
54.0	54.2
90.8	90.4
162.3	161.9
204.2	
216.3	216.0
244.8	244.8
292.0	291.8
298.8	298.8
330.0	329.7
363.3	363.1
377.2	376.4
411.7	411.4
427.1	427.0
445.0	444.7
483.1	482.8
531.6	531.4
575.0	574.6

TABLE II. List of the γ -ray transition energies in keV in ^{153}Pr . The values are taken from Ref. [2]. The old energy values from the original paper are also listed for comparison. All the levels are normalized to an unknown x keV.

E_γ (keV)	
Original	New
49.9	49.9
50.4	50.4
51.7	
88.0	87.7
156.7	156.3
206.6	206.3
207.1	206.6
227.8	
277.7	
279.5	279.2
351.1	351.2
417.8	417.9
477.9	477.8
528.4	528.2

As indicated in the original paper and in the table and the figures of the present Erratum, all level energies are given relative to a floating level with unknown energy offset “ x keV”.

There are other changes made to the level schemes of $^{151,153}\text{Pr}$. Those changes with the correct level schemes were reported in Refs. [1,2]. Here we repeat such changes in this Erratum. In ^{151}Pr , the 204 keV transition reported in the original paper does not exist. The 41.9 keV transition was reported just below the 216 keV transition in the original paper. This transition is located below 90.4 keV transition with 39.3 keV energy. In ^{153}Pr , the 51.7, 227.8, and 277.7 keV transitions reported in the original paper do not exist.

In the original paper, we also reported level scheme of ^{157}Sm . Those reported transitions all belong to ^{157}Sm but the level scheme is not correct. The correct level scheme will be published in a different paper as this is not the main purpose of present Erratum.

The authors thank the data scientists at the National Nuclear Data Center at BNL for calling our attention to these energy corrections.

[1] E. H. Wang *et al.*, *Phys. Rev. C* **92**, 034317 (2015).

[2] E. H. Wang *et al.*, *Phys. Rev. C* **109**, 029902(E) (2024).