Erratum to: New decay modes of the high-spin isomer of ^{124}Cs

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An error was discovered in the extraction of the singles intensities for comparison of the internal transition decay of the isomer to the β -decay branches. Further, the 907 keV ($6^+ \rightarrow 4^+$) transition was inadvertently omitted in the calculation of the total singles intensity of ^{124}Xe populated by the isomer decay. The value of the β -decay branch has increased to 0.56(11)%. Tables 1 and 2 are reproduced here with the corrected singles intensities, and table 2 has the corresponding δI values as a percent of the total isomer decay intensity.

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Table 1. Transition energies and intensities from levels in ^{124}Cs and ^{124}Xe populated in the β^+/EC decay of the ^{124}Cs high-spin isomer. The level and transition energies, spins and parities for ^{124}Xe and ^{124}Cs are taken from Ref. [1] and Ref. [2]. All energies are given in keV. Uncertainties are listed in parentheses and are statistical only. The total intensities listed have been corrected for internal conversion.

E_i (keV)	E_γ (keV)	$I_i^\pi \rightarrow I_f^\pi$	I (singles)
1548.46(9)	669.70(2)	$6_1^+ \rightarrow 4_1^+$	4346(192)
1836.92(9)	588.9(1)	$5_1^+ \rightarrow 3_1^+$	163(62)
	958.1(2)	$5_1^+ \rightarrow 4_1^+$	123(43)
2143.74(13)	705.1(2)	$6^+ \rightarrow 4^+$	447(147)
2380.9(4)	942.9(2)	$5 \rightarrow 4^+$	251(65)
2779.0(4)	907.3(2)	$(6^+) \rightarrow (4^+)$	156(44)
^{124}Xe Total		$5.49(27) \times 10^3$	
397.65(8)	96.55(5)	$(5)^- \rightarrow (4)^-$	$9.4(18) \times 10^5$
462.54(9)	161.0	$(7)^+ \rightarrow (4)^-$	$2.7(2) \times 10^4$
^{124}Cs Total		$9.7(18) \times 10^5$	

Table 2. γ -ray singles intensities (in arbitrary units) and δI as a percent of the total isomer decay intensity. Uncertainties are listed in parentheses and are statistical only.

E_i (keV)	E_γ (keV)	I (singles)	δI (%)
1548	670	4346(192)	0.058(30)
1837	589	163(62)	0.026(10)
	958	123(43)	
2144	595	67(16)	0.053(19)
	705	447(147)	
2381	943	251(65)	0.0258(85)
2532	983	257(52)	0.0264(76)
2575	737	32(11)	0.0033(14)
2779	907	156(44)	0.304(64)
	1231	2803(146)	
2979	1431	234(49)	0.0241(71)
3739	2190	257(61)	0.0264(82)
4093	2544	167(54)	0.0172(65)

References

1. J. Katakura, Z.D. Wu, Nucl. Data Sheets **109**, 1655 (2008).
2. A.J. Radich, MSc Thesis, University of Guelph (2015).