Erratum: Signature splitting inversion and backbending in ^{80}Rb [Phys. Rev. C **87**, 034320 (2013)]

Chuangye He, Shuifa Shen , Shuxian Wen, Lihua Zhu, Xiaoguang Wu, Guangsheng Li, Yue Zhao, Yupeng Yan, Zhijun Bai, Yican Wu, Yazhou Li, Gui Li, Shiwei Yan, M. Oshima, Y. Toh, A. Osa, M. Koizumi, Y. Hatsukawa, M. Matsuda, and T. Hayakawa

(Received 22 January 2020; revised 5 June 2020; published 10 August 2020; corrected 4 May 2021)

DOI: [10.1103/PhysRevC.102.029903](https://doi.org/10.1103/PhysRevC.102.029903)

The original paper contained several typographical mistakes in Table I as well as in the text, and the low-energy part of Fig. 3 was not entirely clear. In correcting these mistakes, we have also adjusted the level energies based on a more robust data analysis procedure.

There are some typos in Table I of our original paper. A correct Table I is shown below.

TABLE I. The DCO ratios of strong γ rays in ^{80}Rb deduced from the present experiment. Those marked with an asterisk are different between the Erratum and the original paper.

E_i^a (keV)	E_γ^b (keV)	$E_\gamma^{\text{gate}c}$ (keV)	$I_i^\pi{}^d$	$I_f^\pi{}^e$	R_{DCO}^f
1542	419	472	(10 ⁺)	(9 ⁺)	0.95
2027	484	472	(11 ⁺)	(10 ⁺)	0.87
3152	472	472	(13 ⁺)	(12 ⁺)	0.80
2027	903	472	(11 ⁺)	(9 ⁺)	2.26
3152	1125	472	(13 ⁺)	(11 ⁺)	2.09
4446	1294	472	(15 ⁺)	(13 ⁺)	2.41
5907	1461	472	(17 ⁺)	(15 ⁺)	2.28
7554	1647	472	(19 ⁺)	(17 ⁺)	1.95
9329	1775	472	(21 ⁺)	(19 ⁺)	2.06
652	157*	891*	(8 ⁺)	6 ⁺	0.98
2680	1138	891*	(12 ⁺)	(10 ⁺)*	0.96
4033	1353	891*	(14 ⁺)	(12 ⁺)	1.04
472	96	175	4 ⁽⁺⁾	3 ⁺	0.94
335*	159*	175	(3 ⁻)	2 ⁽⁻⁾	0.95
418	84	175	(4 ⁻)	(3 ⁻)	0.52
496	78	175	(5 ⁻)	(4 ⁻)	0.63
398	63	175	(4 ⁻)	(3 ⁻)	0.60
486	88	175	(5 ⁻)	(4 ⁻)	0.50
884	398	175	(7 ⁻)	(5 ⁻)	0.94
1592	708	175	(9 ⁻)	(7 ⁻)	1.08
2507	915	175	(11 ⁻)	(9 ⁻)	1.33
3599	1092	175	(13 ⁻)	(11 ⁻)	1.68
4843	1244	175	(15 ⁻)	(13 ⁻)	1.26
6137	1294	175	(17 ⁻)	(15 ⁻)	1.20
7544	1407	175	(19 ⁻)	(17 ⁻)	1.03
9038	1494	175	(21 ⁻)	(19 ⁻)	0.80
644	246	175	(6 ⁻)	(4 ⁻)	1.08
884	240	175	(7 ⁻)	(6 ⁻)	0.50

TABLE I. (*Continued.*)

E_i^a (keV)	E_γ^b (keV)	$E_\gamma^{\text{gate } c}$ (keV)	$I_i^\pi{}^d$	$I_f^\pi{}^e$	R_{DCO}^f
1205	561	175	(8 ⁻)	(9 ⁻)	1.08
1999	794	175	(10 ⁻)	(8 ⁻)	1.63
2999	999*	175	(12 ⁻)	(10 ⁻)	1.33
4185	1186	175	(14 ⁻)	(12 ⁻)	1.59
5547	1363*	175	(16 ⁻)	(14 ⁻)	1.35
765	268	175	(6 ⁻)	(5 ⁻)	0.61
765	367	175	(6 ⁻)	(4 ⁻)	0.99
765	346	175	(6 ⁻)	(4 ⁻)	1.03
1411	646	175	(8 ⁻)	(6 ⁻)*	1.24
2260	849	175	(10 ⁻)	(8 ⁻)*	1.26
3269	1009	175	(12 ⁻)	(10 ⁻)*	1.70
4355	1086	175	(14 ⁻)	(12 ⁻)*	1.67
581	183	175	(5 ⁻)	(4 ⁻)	0.52
1066	485	175	(7 ⁻)	(5 ⁻)	0.92
1066	580	175	(7 ⁻)	(5 ⁻)	1.28
1849	784	175	(9 ⁻)	(7 ⁻)	1.33
2787	938	175	(11 ⁻)	(9 ⁻)	1.47
3906	1119	175	(13 ⁻)	(11 ⁻)	1.46

^aEnergy of the initial state.^bTransition energy.^cEnergy of the gating transition used for the determination of the DCO ratio.^dSpin and parity of the initial state.^eSpin and parity of the final state.^fDCO ratio.

In Fig. 3 of our original paper, the low-energy part is not very clear. A clear level scheme is shown below. In this level scheme some level energies are different in this Erratum and the original paper because the energies of all levels in the Erratum are obtained from a least-squares fit to E_γ data assuming 1 keV uncertainty for each γ ray. This was not done in the original paper. (The level energies are shown in italic font.) For the level energies one can also refer to the XUNDL data set [1]. For the sake of clarity of the level scheme, some γ transitions with small energies in the low-energy level scheme have been drawn with longer arrows, not to scale.

In addition, in p. 2 of our original paper “Tandem accelerator at Japan Atomic Energy Research Institute (JAERI)” should be “Tandem accelerator at Japan Atomic Energy Agency (JAEA)” and “JAERI” should be “JAEA” because Japan Atomic Energy Research Institute has been renamed Japan Atomic Energy Agency.

No results of the original paper other than those indicated here have changed.

FIG. 3. Partial level scheme of ^{80}Rb proposed in the present Erratum. The arrows for the small γ transition energies are not to scale. The transition energies and level energies are given in keV. The level energies are shown in italic font. It should be noted that the 6^+ state is a μ s isomer and therefore the transitions feeding this state do not have a prompt coincidence with those below it.

[1] <https://www.nndc.bnl.gov/ensdf/dsbykn.jsp?kn=2013HE08&db=xundl&nav=off> [dataset 65CU(19F,P3NG):XUNDL-4] compiled by E. McNeice and B. Singh (McMaster).

Correction note: The originally published Figure 3 and its caption contained errors and have been fixed. In the original Erratum, the last sentence of the caption of Fig. 3 stated that “the level depopulating 151 keV γ -ray and the level depopulating 88 keV γ -ray is not the identical level” and the figure reflected this. However, the data are consistent with the two levels being identical. In the corrected Figure 3 this is indicated by the blue dashed line.