

$^{83}\text{Nb}$   $\varepsilon$  decay **1988Ku14**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 125, 201 (2015)	31-Dec-2014

Parent:  $^{83}\text{Nb}$ :  $E=0.0$ ;  $J^\pi=(5/2^+)$ ;  $T_{1/2}=3.9$  s 2;  $Q(\varepsilon)=7.50\times 10^3$  30;  $\% \varepsilon + \% \beta^+$  decay=100.0

$^{83}\text{Nb}$  activity produced by  $^{58}\text{Ni}(^{28}\text{Si}, 2\text{pn})$ ,  $E=95$  MeV. Measured  $E_\gamma$ ,  $E_\beta$ ,  $\beta\gamma$  coincidence,  $\gamma(t)$  using a Ge detector and a plastic scintillator.

$\beta^+$  endpoint energy of 6.4 MeV 3 measured in coincidence with Zr K x-rays, the 52.7 $\gamma$  and the 24.3 $\gamma$ .

$\alpha$ : [Additional information 1](#).

 $^{83}\text{Zr}$  Levels

E(level)	$J^\pi$ <sup>†</sup>	$T_{1/2}$	Comments
0.0	(1/2 <sup>-</sup> )	41.6 <sup>†</sup> s 24	
52.70 5	(5/2 <sup>-</sup> )	0.53 <sup>†</sup> $\mu$ s 12	
77.00 7	(7/2 <sup>+</sup> )	2.0 $\mu$ s 2	$T_{1/2}$ : from $\beta\gamma(t)$ of 24.3 $\gamma$ ( <b>1988Ku14</b> ).

<sup>†</sup> From the Adopted Levels.

 $\gamma(^{83}\text{Zr})$ 

$E_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult. <sup>†</sup>	$\alpha$	Comments
24.30 5	77.00	(7/2 <sup>+</sup> )	52.70	(5/2 <sup>-</sup> )	E1	6.28	$\alpha(\text{K})=5.43$ 9; $\alpha(\text{L})=0.719$ 11; $\alpha(\text{M})=0.1226$ 19; $\alpha(\text{N})=0.01616$ 25; $\alpha(\text{O})=0.000783$ 12
52.70 5	52.70	(5/2 <sup>-</sup> )	0.0	(1/2 <sup>-</sup> )	E2	11.19	$\alpha(\text{K})=8.13$ 12; $\alpha(\text{L})=2.55$ 4; $\alpha(\text{M})=0.451$ 7; $\alpha(\text{N})=0.0566$ 9; $\alpha(\text{O})=0.001195$ 17

<sup>†</sup> From the Adopted Gammas.

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## Decay Scheme

