

^{167}Tb β^- decay 1999As03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 90, 431 (2000)	5-Jul-2000

Parent: ^{167}Tb : $E=0.0$; $J^\pi=(3/2^+)$; $T_{1/2}=19.4$ s 27; $Q(\beta^-)=4100$ SY; $\% \beta^-$ decay=100.0

Sources from on-line isotope separation of products from 20-MeV proton induced fission of ^{238}U ; measured E_γ , I_γ , $I(K\alpha \text{ x ray})$, $K \text{ x ray}(t)$, $\gamma(t)$, $\beta\gamma$ coin.

 ^{167}Dy Levels

<u>E(level)[†]</u>	<u>J^π[‡]</u>
0.0 [#]	(1/2 ⁻)
57.2 [#] 2	(3/2 ⁻)
69.7 [#] 2	(5/2 ⁻)
97.8? 3	(5/2 ⁻)

[†] From E_γ .

[‡] From Adopted Levels.

[#] Band(A): probable 1/2[521] band (1999As03).

 $\gamma(^{167}\text{Dy})$

E_γ is from 1999As03. I_γ is unstated by authors; however, from $\beta\gamma$ spectrum (fig. 1), $I(57\gamma)$ and $I(70\gamma)$ are comparable.

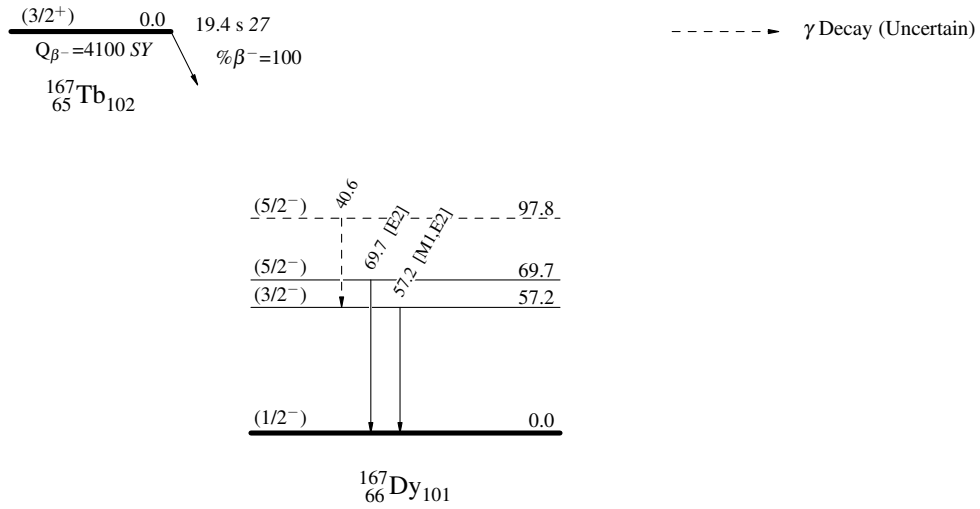
<u>E_γ</u>	<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.</u>	<u>α^\dagger</u>
40.6 [‡] 2	97.8?	(5/2 ⁻)	57.2	(3/2 ⁻)		
57.2	57.2	(3/2 ⁻)	0.0	(1/2 ⁻)	[M1,E2]	19 6
69.7 2	69.7	(5/2 ⁻)	0.0	(1/2 ⁻)	[E2]	11.1

[†] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ -ray energies, assigned multiplicities, and mixing ratios, unless otherwise specified.

[‡] Placement of transition in the level scheme is uncertain.

^{167}Tb β^- decay 1999As03Decay Scheme

Legend



$^{167}\text{Tb} \beta^-$ decay 1999As03

Band(A): Probable
1/2[521] band (1999As03)

(5/2⁻) 69.7

(3/2⁻) 57.2

70

57

(1/2⁻) 0.0

$^{167}_{66}\text{Dy}_{101}$