

$^{144}\text{Dy}$   $\varepsilon$  decay 1986Re11

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. A. Sonzogni	NDS 93, 599 (2001)	1-Dec-2000

Parent:  $^{144}\text{Dy}$ : E=0.0;  $J^\pi=0^+$ ;  $T_{1/2}=9.1$  s 4; Q( $\varepsilon$ )=6092 SY; % $\varepsilon$ +% $\beta^+$  decay=100.0

Source:  $^{35}\text{Cl}$  on  $^{112}\text{Sn}$ , ms. Measured (K x ray)G.

 $^{144}\text{Tb}$  Levels

E(level) <sup>‡</sup>	$J^\pi$ <sup>†</sup>	$T_{1/2}$
0.0	1 <sup>+</sup>	$\approx 1$ s
196.5	(1 <sup>+</sup> )	
298.6	(1 <sup>+</sup> )	
475.5	(1 <sup>+</sup> )	

<sup>†</sup> From Adopted Levels.

<sup>‡</sup> As given by authors.

 $\varepsilon, \beta^+$  radiations

E(decay)	E(level)	Log $ft$ <sup>‡</sup>	I( $\varepsilon + \beta^+$ ) <sup>†#</sup>
(5616 SY)	475.5	5.5	5
(5793 SY)	298.6	5.2	10
(5895 SY)	196.5	5.2	11
(6092 SY)	0.0	4.5	$\approx 74$

<sup>†</sup> g.s. feeding deduced from relative  $I_\gamma$  in  $^{144}\text{Dy}$ ,  $^{144}\text{Tb}$ ,  $^{144}\text{Tb}$  (4.25 s).

<sup>‡</sup> Calculated by the authors. Authors do not give Q value.

# Absolute intensity per 100 decays.

 $\gamma(^{144}\text{Tb})$ 

$I_\gamma$  normalization: the g.s. feeding has been estimated by 1986Re11 from the apparent half-life of 743 $\gamma$  (>4.25 s) in  $^{144}\text{Tb}$  decay, which is simultaneously produced from decay of  $^{144}\text{Tb}$  (4.25 s) and  $^{144}\text{Dy}$ .

$E_\gamma$	$I_\gamma$ <sup>†</sup>	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$
196.5 3	100 10	196.5	(1 <sup>+</sup> )	0.0	1 <sup>+</sup>
298.6 3	91 9	298.6	(1 <sup>+</sup> )	0.0	1 <sup>+</sup>
<sup>x</sup> 321.5 3	20 2				
475.5 3	45 5	475.5	(1 <sup>+</sup> )	0.0	1 <sup>+</sup>

<sup>†</sup> For absolute intensity per 100 decays, multiply by 0.11.

<sup>x</sup>  $\gamma$  ray not placed in level scheme.

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## Decay Scheme

Intensities:  $I_\gamma$  per 100 parent decays