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**Adopted Levels**

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Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	F. G. Kondev	ENSDF	20-Feb-2017

$Q(\beta^-)=8370$  (syst) 591;  $S(n)=3111$  (syst) 500;  $S(p)=14059$  (syst) 565;  $Q(\alpha)=-5005$  (syst) 447    [2017Wa10](#)  
 $S(2n)=7962$  (syst) 500;  $Q(\beta^-n)=3119$  (syst) 591    [2017Wa10](#)

**Additional information 1.**

[2017Wu04](#): The  $^{151}\text{Ba}$  nuclide was produced at the RIBF-RIKEN facility using the  $^9\text{Be}(^{238}\text{U},\text{F})$  reaction at  $E=345$  MeV/nucleon.

Two experiments, optimized for the transmission of  $^{158}\text{Nd}$  and  $^{170}\text{Dy}$  ions, were carried out with average beam intensities of 7 pA and 12 pA, respectively. The identification of the nuclide of interest was made in the BigRIPS separator by determining the atomic number and the mass-to-charge ratio of the ion using the TOF-B $\rho$ - $\Delta E$  method. The reaction products were transported through the ZeroDegree Spectrometer and implanted into the beta-counting system WAS3ABi that was surrounded by the EURICA array comprising of 84 HPGe detectors. The typical implantation rate was 100 ions/s. Measured: implanted ion- $\beta^-$ -t, implanted ion- $\beta^-$ - $\gamma$ -t and implanted ions- $\gamma$ -t correlations. Deduced:  $T_{1/2}$ .

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 $^{151}\text{Ba}$  Levels

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E(level)	$T_{1/2}$	Comments
0.0	0.167 s 5	$\% \beta^- = 100$ ; $\% \beta^- n = ?$ $\% \beta^-$ : Only $\beta^-$ decay mode is expected. $T_{1/2}$ : From <a href="#">2017Wu04</a> , using a fit to the implanted ion- $\beta^-$ -t spectrum using the least-squares and maximum-likelihood methods. The data analysis included contributions from the parent, daughter and ground-daughter decays, as well as a constant background.