

Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 160, 1 (2019)	21-Oct-2019

$Q(\beta^-)=7635$ (syst) 300; $S(n)=3632$ (syst) 361; $S(p)=13539$ (syst) 424; $Q(\alpha)=-5265$ (syst) 500 2017Wa10

$S(2n)=9013$ (syst) 361; $S(2p)=25888$ (syst) 424; $Q(\beta^-n)=2254$ (syst) 321 2017Wa10

2017Wu04: ^{155}La nuclide produced at RIBF-RIKEN facility using $^9\text{Be}(^{238}\text{U},\text{F})$ reaction at $E=345$ MeV/nucleon. Two experiments, optimized for transmission of ^{158}Nd and ^{170}Dy ions, were carried out with average beam intensities of 7 pA and 12 pA, respectively. Identification of nuclide of interest was made in BigRIPS separator by determining the atomic number and the mass-to-charge ratio using the tof-B ρ - ΔE method. Reaction products transported through ZeroDegree Spectrometer and implanted into beta-counting system WAS3ABi surrounded by EURICA array comprising of 84 HPGe detectors. Typical implantation rate 100 ions/s. Measured: implanted ion- β^- -t, implanted ion- β^- - γ -t and implanted ions- γ -t correlations. Deduced: $T_{1/2}$.

Others: 1997Be12 and 1994Be24.

 ^{155}Ce Levels

E(level)	$T_{1/2}$	Comments
0.0	313 ms 7	$\% \beta^- = 100$; $\% \beta^- n = ?$ Only β^- decay mode is expected. J^π : (5/2 $^-$) is predictable from systematics of known quasiparticle states in neighboring nuclei and the proposed configuration. Additional information 1. $T_{1/2}$: From 2017Wu04, using a fit to the implanted ion- β^- -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. configuration: $\nu 5/2[523]$ Nilsson orbital, tentatively expected based on systematics of known structures in neighboring, well-deformed nuclei.