Adopted Levels

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

Q(β^-)=8610 (syst) *500*; S(n)=3182 (syst) *500*; S(p)=14169 (syst) *565*; Q(α)=−5885 (syst) *565* 2017Wa10
S(2n)=8293 (syst) *500*; Q(β^-n)=3566 (syst) *447* 2017Wa10

Additional information 1.

2017Wu04: The ^{157}Ce nuclide was produced at the RIBF-RIKEN facility using the ^{9}Be(^{238}U,F) reaction at E=345 MeV/nucleon. Two experiments, optimized for the transmission of ^{158}Nd and ^{170}Dy ions, were carried out with average beam intensities of 7 pnA and 12 pnA, 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-Bρ-ΔE 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-β^--t, implanted ion-β^--γ-t and implanted ions-γ-t correlations. Deduced: $T_{1/2}$.

Others: 1997Be12 and 1994Be24.

^{157}Ce Levels

E(level)	J$^\pi$	$T_{1/2}$	Comments
0.0	(7/2$^+$)	0.18 s *4*	%β^-=100; %β^-n=? %β^-: Only β^- decay mode is expected. J$^\pi$: From systematics of known quasiparticle states in neighboring nuclei and the proposed configuration (by the evaluator). The assignment is tentative. $T_{1/2}$: 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. $T_{1/2}$=0.175 s *41* is reported in 2017Wu04. configuration: ν7/2[633] Nilsson orbital, based on systematics of known structures in neighboring, well-deformed nuclei (by the evaluator). The assignment is tentative.