Adopted Levels

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

$Q(\beta^-)$=7580 (syst) *500*; S(n)=4842 (syst) *565*; S(p)=14770 (syst) *640*; $Q(\alpha)$=−5535 (syst) *500*   2017Wa10
S(2n)=7953 (syst) *565*; $Q(\beta^-n)$=3529 (syst) *591*   2017Wa10
Additional information 1.
2010Oh02: ^{152}Ba nuclide identified in Be(^{238}U,F) and Pb(^{238}U,F) reactions with a ^{238}U^{86+} beam energy of 345 MeV/nucleon
    produced by the cascade operation of the RBIF accelerator complex of the linear accelerator RILAC and four cyclotrons RRC, fRC,
    IRC and SRC at RIKEN. Identification of ^{152}Ba nuclei was made on the basis of magnetic rigidity, time-of-flight, and energy loss
    of the fragments, using the BigRIPS fragment separator. 17 counts were assigned to the ^{152}Ba isotope.
2017Wu04: The ^{152}Ba 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: $T_{1/2}$.

^{152}Ba Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	0^+	0.139 s *8*	%β^-=100; %β^-n=?
			%β^-: Only β^- decay mode is expected.
			$T_{1/2}$: 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.