Adopted Levels

	History		
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	25-Mar-2022

$Q(\beta^-)=910\times10^1$ *18*; $S(n)=513\times10^1$ *18*; $S(p)=1164\times10^1$ *18*; $Q(\alpha)=-808\times10^1$ *18*   2021Wa16

$Q(\beta^-n)=860$ *180*, $S(2n)=12430$ *180*, $S(2p)=26320$ *180* (2021Wa16).

1990Tu01, 1994Se12: ^{56}V produced in proton-induced fragmentation and fission reactions on natural Thorium using the high-intensity proton beam of the Los Alamos Meson Physics Facility. Measured mass excess of g.s. of ^{56}V using Time-of-Flight Isochronous (TOFI) spectrometer.

1996Do23: ^{56}V produced in the decay of ^{56}Ti. Measured $\beta\gamma$-coin activity.

1998So03: ^{56}V produced in ^{9}Be(^{65}Cu,X) at E(^{65}Cu=64.5 MeV/nucleon and separated by LISE spectrometer at GANIL. Measured $\beta\gamma$-coin, and $T_{1/2}$ of ^{56}V decay.

Additional information 1.

1998Am04 (also 1997AmZZ thesis): ^{56}V produced and identified in the fragmentation of 500 MeV/nucleon ^{86}Kr beam with 2 g/cm^2 ^{9}Be target and separation of fragments using FRS spectrometer at GSI facility. Measured (implants)β-correlations, and $T_{1/2}$ of decay of ^{56}V.

2003Ma02: ^{56}V produced in ^{9}Be(^{86}Kr^{34+},X) at E=140 MeV/nucleon, followed by separation of fragments using A1900 fragment separator at NSCL-MSU. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$-coin, $\beta\gamma$-coin, $T_{1/2}$ of ^{56}V decay using a double-sided Si microstrip detector (DSSD) and Segmented Germanium Array (SeGA) arranged around the β counting system.

2015Al119: yield measurement in ^{2}H(^{136}Xe,X),E=500 MeV/nucleon, with residues analyzed using the FRS magnetic spectrometer and multisampling ionization chambers at GSI facility.

Mass measurements: 1994Se12 (also 1995ViZX), 1990Tu01.

Theoretical calculations: six primary reference extracted from the NSR database (www.nndc.bnl.gov/nsr/), listed here under document records.

^{56}V Levels

Cross Reference (XREF) Flags

A ^{56}Ti β^- decay (200 ms)

E(level)	J^π	$T_{1/2}$	XREF	Comments
0.0	1^+	216 ms *4*	A	$\%\beta^-=100$; $\%\beta^-$n=? Theoretical $T_{1/2}=0.297$ s, $\%\beta^-$n=0 (2019Mo01). Theoretical $T_{1/2}=6.6$ s, $\%\beta^-$n=0 (2021Mi17). $T_{1/2}$: from 2003Ma02 (fragment-β and fragment-β-γ correlated decay curves). Others: 0.24 s *4* (1998Am04, implants-β correlated decay curves); 230 ms *25* (1998So03, singles-β and $\beta\gamma$-coin decay curves) are in agreement with value from 2003Ma02, but much less precise. J^π: log ft=4.62 to 0^+ ground state of ^{56}Cr. Proposed configuration=π3/2[321]$\otimes\nu$3/2[312] (1998So03), with 1^+ assignment for the g.s. of ^{56}V.