

^{72}Co β^- -n decay (62 ms) [2005Ma95](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Khalifeh Abusaleem, Balraj Singh		NDS 112, 133 (2011)	30-Nov-2010

Parent: ^{72}Co : $E=0$; $J^\pi=(6^-, 7^-)$; $T_{1/2}=62$ ms 3; $Q(\beta^-n)=7830$ SY; $\% \beta^-n$ decay ≤ 8.0

^{72}Co - $Q(\beta^-n)$: 7830 700 (syst, [2009AuZZ](#), [2003Au03](#)). Other: 8035 600 from mass excess = -39300 600 (syst, [2003Au03](#)) for ^{72}Co and mass excess = -55406.2 28 ([2007Ra27](#)) for ^{71}Ni .

^{72}Co - $J^\pi, T_{1/2}$: From [2003Sa40](#). Other: $T_{1/2}=90$ ms 20 ([1998Am04](#)).

^{72}Co - $\% \beta^-n$ decay: ≤ 6.2 ([2005Ma95](#)). Note that [2005Ma95](#) quote ≥ 6.2 , which seems a misprint.

[2005Ma95](#) (conference report): ^{72}Co produced by fragmentation of ^{86}Kr beam at 140 MeV/nucleon with a ^9Be target at NSCL facility, A1900 fragment separator, double-sided silicon strip (DSSD) detectors, SeGA gamma-detector array. A 566 γ assigned to ^{71}Ni from the β^-n decay of ^{72}Co .

 ^{71}Ni Levels

E(level)	J^π	$T_{1/2}$	Comments
0	(9/2 ⁺)	2.56 s 3	$J^\pi, T_{1/2}$: From Adopted Levels.

 $\gamma(^{71}\text{Ni})$

E_γ	$E_i(\text{level})$	Comments
^x 566 [†]		E_γ : this γ may be the same as observed in ^{71}Co β^- decay and assigned tentatively from a 1065 level, however no 253 γ from the same level is reported by 2005Ma95 .

[†] Placement of transition in the level scheme is uncertain.

^x γ ray not placed in level scheme.