

^{53}V β^- decay 1971Do02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Huo Junde	NDS 110,2689 (2009)	31-Mar-2007

Parent: ^{53}V : $E=0.0$; $J^\pi=7/2^-$; $T_{1/2}=1.543$ min 14; $Q(\beta^-)=3436.3$; $\% \beta^-$ decay=100.0

1971Do02: measured γ , $\gamma\gamma$.

1969Wa12: measured β , $\beta\gamma$.

1956Sc54: measured β .

Level scheme is from 1971Do02.

 ^{53}Cr Levels

E(level)	J^π †	$T_{1/2}$
0.0	$3/2^-$	stable
563.54 24	$1/2^-$	
1006.17 22	$5/2^-$	
1289.02 24	$7/2^-$	
1536.6 8	$7/2^-$	

† Adopted values.

 β^- radiations

E(decay)	E(level)	$I\beta^-$ †	Log ft	Comments
(1899 3)	1536.6	≈ 0.4	6.5	av $E\beta = 771.9$ 15
2.2×10^3 2	1289.02	11	5.3	av $E\beta = 887.4$ 15 E(decay): from 1969Wa12.
2530 50	1006.17	89	4.6	av $E\beta = 1020.6$ 15 E(decay): from 1956Sc54. Other: 2500 200 (1969Wa12).

† Absolute intensity per 100 decays.

 $\gamma(^{53}\text{Cr})$

I_γ normalization: From $\Sigma I_\gamma(\text{g.s.})=100$.

E_γ , I_γ are from 1971Do02.

E_γ	I_γ †	$E_i(\text{level})$	J_i^π	E_f	J_f^π
247 1	0.2	1536.6	$7/2^-$	1289.02	$7/2^-$
282.7 3	0.85	1289.02	$7/2^-$	1006.17	$5/2^-$
442.7 3	0.43	1006.17	$5/2^-$	563.54	$1/2^-$
531 1	0.2	1536.6	$7/2^-$	1006.17	$5/2^-$
563.6 3	0.43	563.54	$1/2^-$	0.0	$3/2^-$
1006.0 3	100	1006.17	$5/2^-$	0.0	$3/2^-$
1289.1 3	11.2	1289.02	$7/2^-$	0.0	$3/2^-$

† For absolute intensity per 100 decays, multiply by 0.896.

$^{53}\text{V} \beta^-$ decay 1971Do02

Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays

Legend

