^{60}V IT decay (0.32 μs) 1999DaZQ,2010Da06,2012Ka06

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 114, 1849 (2013)	31-Dec-2012

Parent: ^{60}V: E=202.1+x; J^π=(4$^+$); $T_{1/2}$=0.32 μs *9*; %IT decay=?

2012Ka36: In-flight fission of $^{238}U^{86}$ beam 345 MeV/A. Fission fragments analyzed and identified in BigRIPS separator. Delayed γ measured using three clover Ge detector.

2010Da06: Fragments from $^{86}Kr^{34}$ on Ni target, 60.5 MeV/A detected in three-element Si detector telescope. γ measured in four high purity Ge detectors. Results earlier reported in 1999DaZQ.

^{60}V Levels

E(level)	J^π[†]	$T_{1/2}$	Comments
0+x	(3$^+$)		
103.2+x	(2$^+$)	13 ns *3*	$T_{1/2}$: From 2010Da06.
202.1+x	(4$^+$)	0.32 μs *9*	$T_{1/2}$: From 2010Da06. Other: 0.229 *+25−23* (2012Ka36). J^π: (4$^+$) suggested by 2010Da06, 1999DaZQ based on proposed mult.

[†] from Adopted Levels.

$\gamma(^{60}V)$

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[#]	Comments
98.9[@] *5*	100 *7*	202.1+x	(4$^+$)	103.2+x	(2$^+$)	(E2)	0.395 *10*	α(K)=0.356 *9*; α(L)=0.0350 *9*; α(M)=0.00453 *12*; α(N+..)=0.000208 *5* α(N)=0.000208 *5* Mult.: From 2010Da06, 1999DaZQ based on level $T_{1/2}$ and RUL. E_γ: 99.7 (2012Ka06).
103.2[@] *5*	60 *8*	103.2+x	(2$^+$)	0+x	(3$^+$)	(E2+M1)	0.18 *16*	α(K)=0.16 *15*; α(L)=0.016 *14*; α(M)=0.0020 *18*; α(N+..)=9.E−5 *9* α(N)=9.E−5 *9* E_γ: 104.0 (2012Ka36).

[†] From 1999DaZQ, 2010Da06.

[‡] From 2012Ka06. Intensity within time window 0.2 μs and 1 μs.

[#] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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

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Legend

Decay Scheme

Intensities: Relative $I_{(\gamma+ce)}$

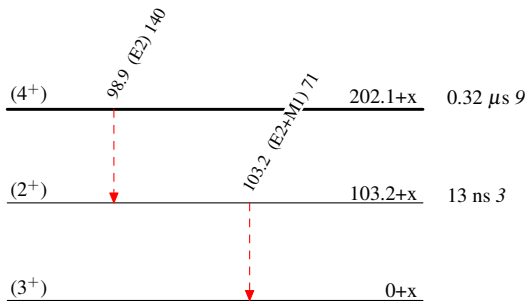
%IT=?

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$

γ Decay (Uncertain)



$^{60}_{23}V_{37}$