

$^{132}\text{La IT decay (24.3 min)}$ [1972Ha41](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, A. A. Rodionov and S. Sakharov, Balraj Singh		NDS 104, 497 (2005)	10-Feb-2005

Parent: ^{132}La : E=188.56 18; $J^\pi=6^-$; $T_{1/2}=24.3$ min 5; %IT decay=76.0

^{132}La -%IT decay: From the total intensity of the 663γ in ^{132}Ba populated by the $\varepsilon+\beta^+$ decay of 24.3-min isomer of ^{132}La , [1972Ha41](#) estimate that 24% branch from this isomer proceeds to ^{132}Ba levels.

[1972Ha41](#): Measured ce, subshell ratios.

[1969Ge11](#): Measured half-life, $E\gamma$, $I\gamma$.

The level scheme is from [1972Ha41](#) and [1969Ge11](#).

 $^{132}\text{La Levels}$

E(level)	J^π [†]	$T_{1/2}$	Comments
0.0	2^-		
135.77 17	3^-		
188.56 18	6^-	24.3 min 5	$T_{1/2}$: from Adopted Levels.

[†] From Adopted Levels.

 $\gamma(^{132}\text{La})$

$I\gamma$ normalization: $\Sigma(I(\gamma+ce))$ to g.s.)=100.

E_γ [†]	I_γ [#]	E_i (level)	J_i^π	E_f	J_f^π	Mult.	δ	α [@]	Comments
52.8 1	0.081 [‡] 6	188.56	6^-	135.77	3^-	M3		1770	$\alpha(K)= 573; \alpha(L)= 941; \alpha(M)= 230.2; \alpha(N+..)= 71.6$
135.8 2	100 [‡] 7	135.77	3^-	0.0	2^-	M1+E2	0.21 3	0.470	I_γ : from intensity balance at 135.8 level. Other: <0.2 (1969Ge11). Mult., δ : from K:L1:L2:L3:M=100:15:16 2:130 20:60 9.
188.5 3	≈ 0.6	188.56	6^-	0.0	2^-	E4		8.38	$\alpha(K)= 0.3967 13; \alpha(L)= 0.0568 17;$ $\alpha(M)= 0.0118 4; \alpha(N+..)= 0.00324 10$ Mult., δ : from K:L1:L2:L3:M=100 15:16 3:1.4 3:0.8 2:4.5 7. I_γ : from $I(\gamma+ce)(188.5)/I(\gamma+ce)(135.8) \approx 0.04$ (1972Ha41). Other: <1 (1969Ge11). Mult.: from K:L3:M=4.5 7:3.0 5:2.5 4; L2 and L3 are partially resolved.

[†] From ce data of [1972Ha41](#); uncertainty is quoted as 0.15%.

[‡] Total intensity measurement of the 52 and 135 transitions in a cascade differed by <7% ([1972Ha41](#)), thus uncertainty of about 7% is assigned to the photon intensity.

[#] For absolute intensity per 100 decays, multiply by 0.494 23.

[@] 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.

$^{132}\text{La IT decay (24.3 min)}$ **1972Ha41**Decay Scheme

Legend

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
 $\%IT=76.0$

- $I_\gamma < 2\% \times I_{\gamma}^{max}$
- $I_\gamma < 10\% \times I_{\gamma}^{max}$
- $I_\gamma > 10\% \times I_{\gamma}^{max}$

