

^{127}La β^+ decay (3.7 min) [1978Bo32](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. Hashizume	NDS 112, 1647 (2011)	1-Oct-2009

Parent: ^{127}La : $E=14.2$ 4; $J^\pi=(3/2^+)$; $T_{1/2}=3.7$ min 4; $Q(\beta^+)=4920$ 28; $\% \beta^+$ decay=100.0

$^{98}\text{Ru}+^{32}\text{S}$ $E=190$ MeV; on-line mass separation; semi γ , x-ray; plastic β .

The decay scheme is based on that of ^{127}La β^+ decay (5.1 min).

 ^{127}Ba Levels

<u>$E(\text{level})^\dagger$</u>	<u>J^π^\ddagger</u>	<u>$T_{1/2}$</u>
0.0	$1/2^+$	12.7 min 4
56.2 5	$3/2^+$	
81.2 7	$(5/2)^+$	

† From a least-squares fit to E_γ 's.

‡ From Adopted Levels.

 $\gamma(^{127}\text{Ba})$

<u>E_γ^\dagger</u>	<u>I_γ^\ddagger</u>	<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult. @</u>	<u>$\alpha^\#$</u>	<u>Comments</u>
25.0 5	3.0 6	81.2	$(5/2)^+$	56.2	$3/2^+$	M1	8.3 6	$\alpha(\text{L})=6.6$ 5; $\alpha(\text{M})=1.36$ 9; $\alpha(\text{N}+..)=0.341$ 22 $\alpha(\text{N})=0.293$ 19; $\alpha(\text{O})=0.045$ 3; $\alpha(\text{P})=0.00319$ 21
56.2 5	12.5 13	56.2	$3/2^+$	0.0	$1/2^+$	M1(+E2)	10 6	$\alpha(\text{K})=5.0$ 6; $\alpha(\text{L})=4$ 4; $\alpha(\text{M})=0.9$ 9; $\alpha(\text{N}+..)=0.22$ 19 $\alpha(\text{N})=0.20$ 17; $\alpha(\text{O})=0.025$ 22; $\alpha(\text{P})=0.000271$ 24

† From [1978Bo32](#).

‡ Relative to I(Ba K x-ray)=100.

Theoretical conversion coefficients are calculated using BrIcc code for the multipolarity indicated.

@ From [\(2002Sh01\)](#) in 5.1 m decay.

$^{127}\text{La } \beta^+ \text{ decay (3.7 min) 1978Bo32}$ Decay SchemeIntensities: Relative I_γ

Legend

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

