

^{112}Te ε decay **1976Wi11,1975WiZX**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. Lalkovski, F. G. Kondev		NDS 124, 157 (2015)	1-Aug-2014

Parent: ^{112}Te : $E=0.0$; $J^\pi=0^+$; $T_{1/2}=2.0$ min 2; $Q(\varepsilon)=4032$ 20; $\% \varepsilon + \% \beta^+$ decay=100.0

1975WiZX: Facility: AVF cyclotron at Vrije Universiteit, Amsterdam; Source: mass-separated ^{112}Te from $^{112}\text{Sn}(^3\text{He},3n)$ reaction at $E(^3\text{He})=35$ -40; Target: 35 mg/cm² thick target enriched to 87.51% in ^{112}Sn ; Detectors: four coaxial Ge(Li), one planar Ge(Li) and one LEPS, active and passive anti-Compton shielding; Measured: γ , γ - γ , $\gamma(t)$, $E\gamma$, $I\gamma$; Deduced: ^{112}Sn level scheme, t , J^π , $\log ft$; Other: from the same collaboration: **1976Wi10**.

 ^{112}Sb Levels

$E(\text{level})^\dagger$	$J^\pi^\ddagger$
0.0	(3 ⁺)
103.92 21	(4 ⁺)
236.90 18	(3 ⁺)
296.22 17	(2 ⁺)
350.90? 20	(1 ⁺)
372.70 20	(1 ⁺)
714.57 20	(2 ⁺ ,3 ⁺)
844.9? 4	

[†] From a least-squares fit to $E\gamma$.

[‡] From the Adopted Levels.

 $\gamma(^{112}\text{Sb})$

$E_\gamma^\dagger$	$I_\gamma^\dagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π
^x 38.6 3	16 5					^x 598.5 7	6 3				
^x 52.1 5	5 2					611.9 5	4.3 14	714.57	(2 ⁺ ,3 ⁺)	103.92	(4 ⁺)
59.9 2	4.5 12	296.22	(2 ⁺)	236.90	(3 ⁺)	^x 690.4 4	10 3				
^x 70.0 8	5 2					^x 698.5 3	12 3				
104.2 3	27 5	103.92	(4 ⁺)	0.0	(3 ⁺)	714.7 5	2.4 9	714.57	(2 ⁺ ,3 ⁺)	0.0	(3 ⁺)
132.9 2	23 4	236.90	(3 ⁺)	103.92	(4 ⁺)	^x 743.0 2	11 3				
^x 167.4 2	7 2					^x 797.3 2	24 7				
236.4 4	9 2	236.90	(3 ⁺)	0.0	(3 ⁺)	^x 807.4 4	9 4				
^x 274.2 4	5 2					^x 820.1 2	17 4				
^x 280.4 5	3 2					^x 881.9 3	10 4				
296.2 2	86 8	296.22	(2 ⁺)	0.0	(3 ⁺)	^x 924.8 6	11 5				
350.9 2	36 3	350.90?	(1 ⁺)	0.0	(3 ⁺)	^x 928.4 4	11 5				
^x 357.7 3	6 2					^x 971.3 2	23 6				
372.7 2	100	372.70	(1 ⁺)	0.0	(3 ⁺)	^x 1282.4 9	17 7				
418.9 2	57 5	714.57	(2 ⁺ ,3 ⁺)	296.22	(2 ⁺)	^x 1287.2 8	10 4				
476.9 2	14 3	714.57	(2 ⁺ ,3 ⁺)	236.90	(3 ⁺)	^x 1502.6 6	15 4				
494.0 3	30 10	844.9?		350.90?	(1 ⁺)	^x 1657.6 3	14 5				
^x 584.4 5	8 3					^x 1963.7 4	17 5				

[†] From **1975WiZX**.

^x γ ray not placed in level scheme.

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Decay Scheme

Legend

Intensities: Type not specified

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

$0^+ \xrightarrow{0.0} 0.0$ 2.0 min 2
 $Q_\varepsilon = 4032.20$
 $^{112}_{52}\text{Te}_{60}$
 $\% \varepsilon + \% \beta^+ = 100$

