

$^{127}\text{I}(\mu^-, \nu n \gamma)$ 2007Me09

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

μ produced by E=90 MeV/c π^- decay, plastic scintillators, Compton suppressed HPGe- γ detectors; observed γ 's, x-rays.

 ^{127}Te Levels

E(level) [†]	J π [†]	T _{1/2} [‡]
0.0	3/2 ⁺	9.35 h 7
88.23 7	11/2 ⁻	106.1 d 7
340.87 6	(9/2 ⁻)	0.41 ns 2
473.26 4	5/2 ⁺	
631.40 6	7/2 ⁻	
685.09 7	7/2 ⁺	
762.64 5	3/2 ⁺	
782.62 3	5/2 ⁺	
1289.79 8	5/2 ⁺	

[†] From Adopted Levels. The authors give values from the 1996 version of the Nuclear Data Sheets.

[‡] From Adopted Levels.

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

E γ [†]	I γ [‡]	E _i (level)	J π _i	E _f	J π _f
252.7 1	3.4 4	340.87	(9/2 ⁻)	88.23	11/2 ⁻
290.54 3	0.2 2	631.40	7/2 ⁻	340.87	(9/2 ⁻)
473.3 1	1.4 4	473.26	5/2 ⁺	0.0	3/2 ⁺
543.2 1	0.3 2	631.40	7/2 ⁻	88.23	11/2 ⁻
685.0 1	0.4 4	685.09	7/2 ⁺	0.0	3/2 ⁺
762.6 1	0.2 2	762.64	3/2 ⁺	0.0	3/2 ⁺
782.63 3	1.0 4	782.62	5/2 ⁺	0.0	3/2 ⁺
816.6 2	1.0 5	1289.79	5/2 ⁺	473.26	5/2 ⁺
1289.4 3	<1.0	1289.79	5/2 ⁺	0.0	3/2 ⁺

[†] From Adopted Levels. The authors take values from the 1996 version of the Nuclear Data Sheets.

[‡] Observed γ -ray yield (%) per muon capture in the $^{127}\text{I}(\mu^-, \nu n \gamma)^{127}\text{Te}$ reaction.

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Level Scheme

Intensities: Relative I_γ

Legend

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

