

$^{54}\text{Fe}(^{54}\text{Fe}, 2n\gamma)$ 2005Ha57

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	D. De Frenne and A. Negret		NDS 109, 943 (2008)	1-May-2007

E=182 MeV. Measured E_γ , I_γ , $\gamma\gamma$ using recoil-decay tagging technique, EUROGAM array of 43 Eurogam γ detectors.

Fusion-evaporation residues separated using RITU gas-filled recoil separator. The evaporation residues and α particles were detected by the GREAT spectrometer which used double-sided silicon strip detectors (DSSSD's).

 ^{106}Te Levels

E(level)	J^π [‡]
0.0	0 ⁺
664.8? [†] # 3	(2 ⁺)
1353.2? [†] # 4	(4 ⁺)
1646.2? [†] # 5	(6 ⁺)
2386.6? [†] # 7	(8 ⁺)
3127.0? [†] # 8	(10 ⁺)

[†] The ordering of the transitions in 740-740-293-688-665 cascade is not established, thus the level energies may be different.

[‡] From 2005Ha57.

Band(A): g.s. band. Near-harmonic collective vibrational structure.

 $\gamma(^{106}\text{Te})$

E_γ [†]	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Comments
^x 271.6 6	21 8					E_γ, I_γ : may be contaminated by strong 272 keV γ from ^{105}In also present in reaction channel.
293.0 [‡] 3	62 11	1646.2?	(6 ⁺)	1353.2? (4 ⁺)		
^x 361.5 7	17 5					
^x 491.1 9	12 5					
^x 578.2 6	27 6					
^x 645.6 6	31 8					
664.8 [‡] 3	100 12	664.8?	(2 ⁺)	0.0 0 ⁺		
688.4 [‡] 3	97 12	1353.2?	(4 ⁺)	664.8? (2 ⁺)		
740.4 [#] [‡] 4	97 [#] 12	2386.6?	(8 ⁺)	1646.2? (6 ⁺)		
740.4 [#] [‡] @ 4	97 [#] 12	3127.0?	(10 ⁺)	2386.6? (8 ⁺)		
^x 752.2 9	24 7					
^x 872.0 12	19 6					
^x 939.3 10	30 8					

[†] Obtained from recoil-decay-tagging technique in α decay of ^{106}Te .

[‡] The ordering of the transitions in 740-740-293-688-665 cascade is tentative.

Multiply placed with undivided intensity.

@ Placement of transition in the level scheme is uncertain.

^x γ ray not placed in level scheme.

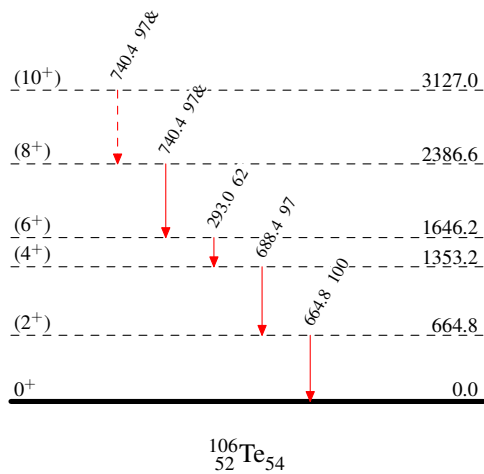
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Level Scheme

Intensities: Relative I_γ
 & Multiply placed: undivided intensity given

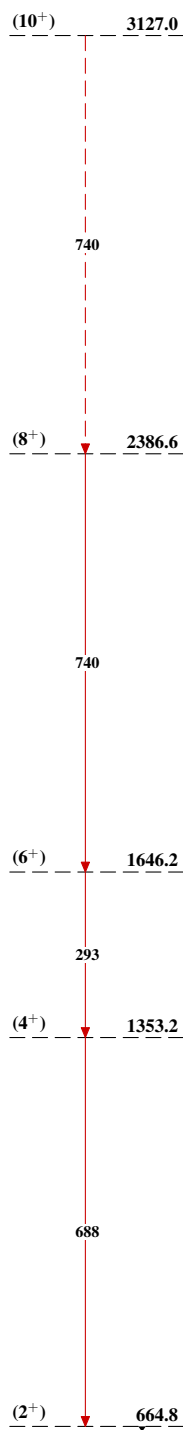
Legend

- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$
- - - - -→ γ Decay (Uncertain)



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Band(A): g.s. band


 $^{106}_{52}\text{Te}_{54}$