

$^{58}\text{Ni}(^{52}\text{Cr},3n\gamma)$ 2004Ha59

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 109, 1383 (2008)	1-Mar-2008

E=187 MeV. Measured E_γ , I_γ , $\gamma\gamma$, $\gamma(\text{recoils})\alpha$ coin using JUROGAM array of 43 EUROGAM type escape suppressed Ge detectors. The gamma rays were identified by the RITU gas-filled recoil separator and the GREAT focal plane spectrometer. This work contains the first identification of gamma rays in ^{107}Te .

 ^{107}Te Levels

E(level)	J^π	Comments
0.0	(5/2 ⁺)	Main decay mode: α decay with % α =70 30.
90.3 4	(7/2 ⁺)	Probable $g_{7/2}$ state.
721.0? 4	(9/2 ⁺)	

 $\gamma(^{107}\text{Te})$

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
90.3 4	100 23	90.3	(7/2 ⁺)	0.0	(5/2 ⁺)	^x 668.1 6	52 19				
^x 482.7 7	19 14					^x 676.4 4	90 23				
^x 542.6 8	19 14					^x 688.6 7	62 23				
^x 556.2 8	19 14					^x 693.9 9	38 19				
^x 571.8 5	38 19					721.0 [†] 4	90 23	721.0?	(9/2 ⁺)	0.0	(5/2 ⁺)
631.3 [†] 5	71 23	721.0?	(9/2 ⁺)	90.3	(7/2 ⁺)						

[†] Placement of transition in the level scheme is uncertain.

^x γ ray not placed in level scheme.

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Legend

Level SchemeIntensities: Relative I_γ

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

