

$^{116}\text{Sn}(^{58}\text{Ni},3n\gamma), \text{Sn}(^{60}\text{Ni},xn\gamma)$ 1998Ce10,2005Jo18,2006Jo04

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin, E. A. Mccutchan		NDS 151, 334 (2018)	30-Jun-2018

2006Jo04,2005Jo18: $\text{Sn}(^{60}\text{Ni},xn\gamma)$, $E=266$ MeV; ^{171}Pt levels populated in reactions with $A>112$ Sn isotopic impurities in target; RITU mass separator; GREAT spectrometer; JUROGAM spectrometer (43 EUROGAM escape-suppressed Ge detectors At 72° , 86° , 94° , 108° , 134° , 158°); measured E_γ , I_γ (for transitions correlated with ^{171}Pt α decay within 150 ms), $\gamma\gamma$ coin, recoil- α - γ coin.

1998Ce10: $E(^{58}\text{Ni})=265$ MeV; two thin 98% ^{116}Sn metal targets, stacked; JUROSPHERE Compton-suppressed Ge-detector array (15 EUROGAM-I and 10 TESSA type detectors), RITU gas-filled recoil separator; recoil α -decay tagging of prompt gammas; measured E_γ , I_γ , $\gamma\gamma$ coin, recoil- α - γ correlation.

 ^{171}Pt Levels

E(level) [†]	J^π [‡]
0.0+x [#]	(13/2 ⁺)
445.2+x [#] 2	(17/2 ⁺)
1050.6+x [#] 3	(21/2 ⁺)
1720.8+x [#] 5	(25/2 ⁺)
2406.0+x [#] 5	(29/2 ⁺)

[†] From E_γ . values are relative to $E(13/2^+ \text{ level})=x$; from Adopted Levels, $x=412.6$ 10.

[‡] From **2005Jo18**, based on deduced $i_{13/2}$ band structure.

[#] Band(A): probable ν $i_{13/2}$ band.

 $\gamma(^{171}\text{Pt})$

E_γ [†]	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π
445.2 2	100 4	445.2+x	(17/2 ⁺)	0.0+x	(13/2 ⁺)
^x 521.5 3	19 1				
605.4 2	82 4	1050.6+x	(21/2 ⁺)	445.2+x	(17/2 ⁺)
^x 616.3 4	17 2				
670.2 3	51 3	1720.8+x	(25/2 ⁺)	1050.6+x	(21/2 ⁺)
685.2 [‡] 3	29 2	2406.0+x	(29/2 ⁺)	1720.8+x	(25/2 ⁺)
^x 758.6 7	4 1				
^x 773.7 5	6 1				

[†] From **1998Ce10**. E_γ data from **2005Jo18** and **2006Jo04** (uncertainty unstated) agree within better than 2 keV.

[‡] Unplaced γ in **1998Ce10**; placed by evaluator, consistent with placement by **2005Jo18**, **2006Jo04**.

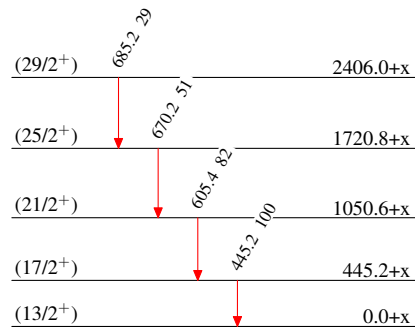
^x γ ray not placed in level scheme.

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Legend

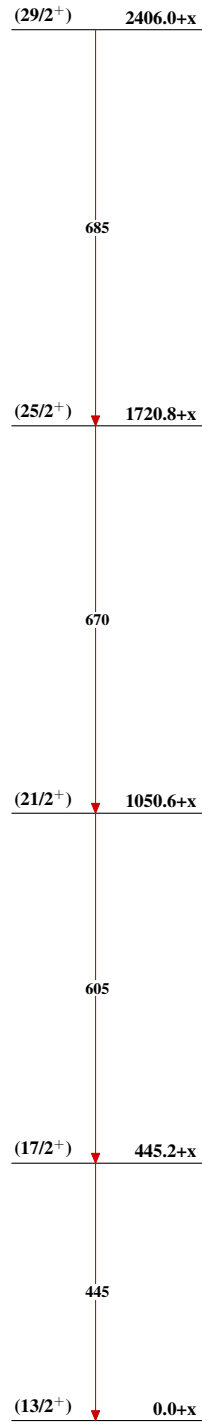
Level Scheme
Intensities: Relative I_γ

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

 $^{171}_{78}\text{Pt}_{93}$

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Band(A): Probable ν $i_{13/2}$
band

 $^{171}_{78}\text{Pt}_{93}$