

(HI,xn γ) 1985Li13,1987Wa02,1985IsZZ

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. A. Sonzogni	NDS 103, 1 (2004)	31-Jul-2022

1987Wa02: $^{92}\text{Mo}(^{46}\text{Ti},2\text{p}2\text{n}\gamma)$ E=210,230 MeV, 2 Compton-suppressed Ge detectors, RDM, measured $T_{1/2}$.

1985Li13: $^{92}\text{Mo}(^{46}\text{Ti},2\text{p}2\text{n}\gamma)$ E=205, 210 MeV, 4 Compton-suppressed Ge detectors.

1985IsZZ, 1986IsZT: $^{106}\text{Cd}(^{32}\text{S},2\text{p}2\text{n}\gamma)$ E=160 MeV, 2 Ge detectors plus Silicon Box.

Other: 1989OgZY.

 ^{134}Sm Levels

E(level) [†]	J ^{π}	$T_{1/2}$ [‡]	Comments
0.0 [#]	0 ⁺	9.5 s 8	$T_{1/2}$: from Adopted Levels.
163.0 [#] 10	2 ⁺	0.42 ns 4	
479.0 [#] 15	4 ⁺	19.3 ps 10	
897.0 [#] 18	6 ⁺	4.4 ps 5	
1388.0 [#] 20	8 ⁺	2.2 ps 3	
1952.0 [#] 23	10 ⁺		
2594.0 [#] 25	12 ⁺		

[†] From least-squares fit to E_γ assuming $\Delta E_\gamma=1$ keV.

[‡] From RDM (1987Wa02), unless otherwise noted.

[#] g.s. band.

 $\gamma(^{134}\text{Sm})$

E_γ [†]	$E_i(\text{level})$	J ^{π} _i	E_f	J ^{π} _f	Mult. [#]	α [@]	$I_{(\gamma+ce)}$ [‡]	Comments
163	163.0	2 ⁺	0.0	0 ⁺	E2	0.421	100	ce(K)/($\gamma+ce$)=0.200 6; ce(L)/($\gamma+ce$)=0.0749 23; ce(M)/($\gamma+ce$)=0.0170 5; ce(N)/($\gamma+ce$)=0.00464 14
316	479.0	4 ⁺	163.0	2 ⁺	E2	0.0481	100 5	ce(K)/($\gamma+ce$)=0.0360 11; ce(L)/($\gamma+ce$)=0.00775 24; ce(M)/($\gamma+ce$)=0.00172 6; ce(N)/($\gamma+ce$)=0.00046 1
418	897.0	6 ⁺	479.0	4 ⁺	E2	0.0210	95 5	ce(K)/($\gamma+ce$)=0.0167 5; ce(L)/($\gamma+ce$)=0.00308 10; ce(M)/($\gamma+ce$)=0.00068 2; ce(N)/($\gamma+ce$)=0.00018 1
491	1388.0	8 ⁺	897.0	6 ⁺	E2	0.0135	95 5	ce(K)/($\gamma+ce$)=0.0109 4; ce(L)/($\gamma+ce$)=0.00188 6; ce(M)/($\gamma+ce$)=0.00041 1; ce(N)/($\gamma+ce$)=0.00011
564	1952.0	10 ⁺	1388.0	8 ⁺	E2	0.0095	80 5	$\alpha=0.0095$; ce(K)/($\gamma+ce$)=0.00769 23; ce(L)/($\gamma+ce$)=0.00126 4
642	2594.0	12 ⁺	1952.0	10 ⁺	E2	0.00684		$\alpha=0.00684$; $\alpha(K)=0.00566$ 17; $\alpha(L)=0.00089$ 3

[†] From $^{106}\text{Cd}(^{32}\text{S},2\text{p}2\text{n}\gamma)$ (1986IsZT).

[‡] From $^{92}\text{Mo}(^{46}\text{Ti},2\text{p}2\text{n}\gamma)$ (1987Wa02).

[#] From angular distributions, also from RUL when $T_{1/2}$ available.

[@] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ -ray energies, assigned multiplicities, and mixing ratios, unless otherwise specified.

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Legend

Level Scheme

● Coincidence

