

(HI,xn γ) 1999Pa41,1998Ga09

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, I. Mitropolsky, A. Rodionov		NDS 107, 2715 (2006)	17-Jul-2022

1999Ga41: $^{106}\text{Cd}(^{32}\text{S},3\text{p}4\text{n})$ E=170 MeV; measured X, γ , γ -X- and γ - γ -coincidences; transport systems, HPGe detectors.

1998Pa09: $^{96}\text{Ru}(^{39}\text{K},2\text{p}2\text{n}\gamma)$ E=186 MeV, ($^{40}\text{Ca},\alpha\text{p}\gamma$) E=180 MeV; Measured $E\gamma$, $I\gamma$, and $\gamma\gamma$ using 8π detector array of 20

Compton-suppressed Ge detectors and an inner ball of 71 BGO scintillators. ALF miniball of Cesium iodide detectors was used for charged particles.

Other: 2008StZX.

 ^{131}Pm Levels

E(level) [†]	J ^{π}	T _{1/2}	Comments
0.0 [‡]	(11/2 ⁻)	6.3 s 8	J ^{π} : From systematics of neighboring odd-A g.s. and decay scheme of ^{131}Pm (1999Ga41). T _{1/2} : From 1999Ga41.
273.0 [‡] 10	(15/2 ⁻)		
680.0 [‡] 15	(19/2 ⁻)		
1218.0 [‡] 18	(23/2 ⁻)		
1874.0 [‡] 20	(27/2 ⁻)		
2634.0 [‡] 23	(31/2 ⁻)		
3486.0 [‡] 25	(35/2 ⁻)		
4422 [‡] 3	(39/2 ⁻)		
5438? [‡]	(43/2 ⁻)		
6537? [‡]	(47/2 ⁻)		

[†] From least-squares fit to $E\gamma$'s, assigning 1 keV uncertainty.

[‡] Band(A): 11/2⁻ band (1998Pa09). The ordering of γ rays deduced from the intensities, J ^{π} from systematics of neighboring Pm isotope bands.

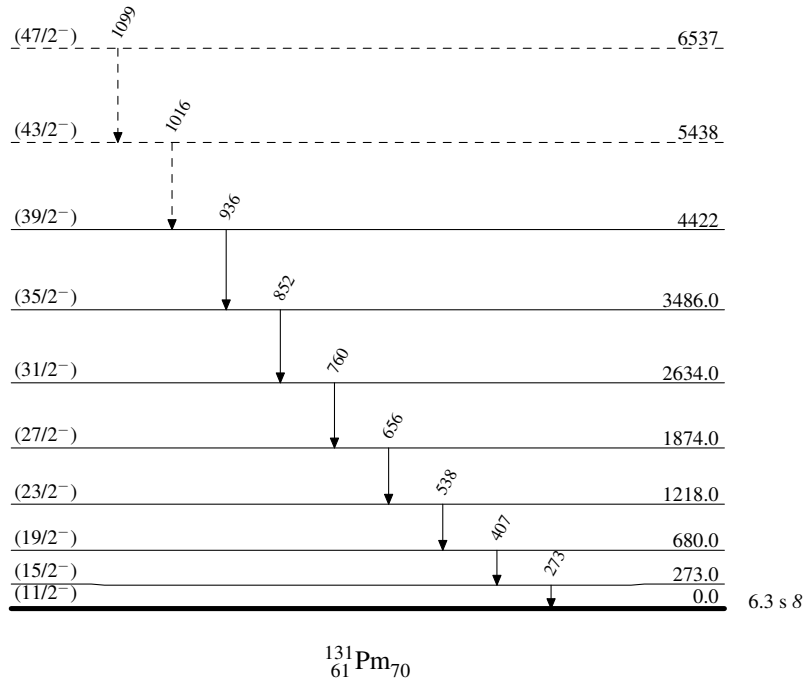
 $\gamma(^{131}\text{Pm})$

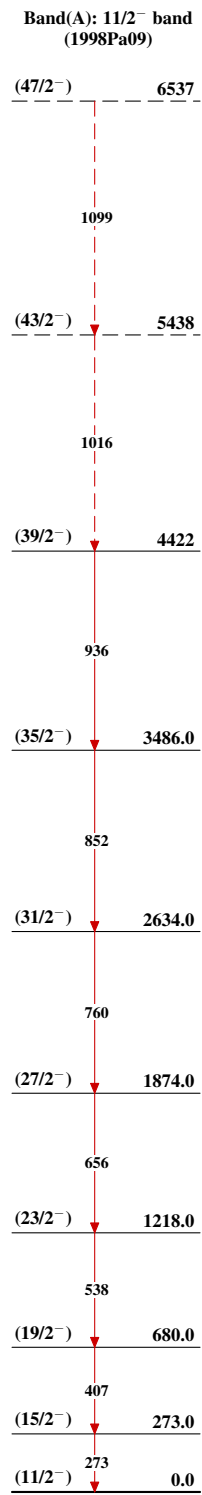
E _{γ}	E _i (level)	J _i ^{π}	E _f	J _f ^{π}
273	273.0	(15/2 ⁻)	0.0	(11/2 ⁻)
407	680.0	(19/2 ⁻)	273.0	(15/2 ⁻)
538	1218.0	(23/2 ⁻)	680.0	(19/2 ⁻)
656	1874.0	(27/2 ⁻)	1218.0	(23/2 ⁻)
760	2634.0	(31/2 ⁻)	1874.0	(27/2 ⁻)
852	3486.0	(35/2 ⁻)	2634.0	(31/2 ⁻)
936	4422	(39/2 ⁻)	3486.0	(35/2 ⁻)
1016 [†]	5438?	(43/2 ⁻)	4422	(39/2 ⁻)
1099 [†]	6537?	(47/2 ⁻)	5438?	(43/2 ⁻)

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

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Legend

Level Scheme----- \blacktriangleright γ Decay (Uncertain)

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