(HI,xnγ) 1995Sa31

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 132, 1 (2016)	4-Dec-2015

^{106}Cd(^{54}Fe,x) and ^{102}Pd(^{58}Ni,x) with projectile energies of 30 MeV above the Coulomb barrier; measured γ singles, γγ coincidences, γ(θ), and γ-neutron coincidences.

^{157}Hf Levels

E(level)[†]	Jπ[‡]	$T_{1/2}$	Comments
0.0[#]	7/2−		
111.0[@]	9/2−		
954.1[@]	13/2−		
1589.9[@]	17/2−		
1859.7[@]	21/2−		
2294.4[&]	23/2(−)		
2682.3[a]	23/2−		
2705.9[@]	25/2−		
2796.8			
2805.1[a]	27/2−		
2875.4[b]	29/2+	52 ns *12*	$T_{1/2}$: from γγ(t) (1995Sa31).
3292.4[@]	29/2−		
3561.4[a]	31/2−		
3660.9	31/2(−)		
3938.4[@]	33/2−		
4185.8[b]	33/2+		
4216.9[a]	35/2−		
4224.9[@]	37/2−		
4757.5[@]	39/2		Jπ: Band assignment assumes π=−.
4798.0[b]	37/2+		
5020.2[b]	41/2+		
5416.0[c]	43/2		
5815.1[c]	47/2		
6106.9[c]	(49/2)		
6499.4[c]	(51/2)		

[†] From unweighted fit to γ energies.

[‡] From author's assignments and based on γ(θ) measurements and expected bands; these assignments were adopted in the Adopted Levels, Gammas dataset (made tentative because of the tentative assignment of the ground state J^π).

[#] Band(A): 7/2− state with configuration $\nu f^3_{7/2}$.

[@] Band(B): band based on 9/2− state with configuration $\nu f^2_{7/2}\nu h_{9/2}$.

[&] Band(C): 23/2− state with configuration $\nu f_{7/2}\nu h^2_{9/2}$.

[a] Band(D): band based on 23/2− level.

[b] Band(E): band based on 29/2+ state with configuration $\nu f_{7/2}\nu h_{9/2}\nu i_{13/2}\pi h^8_{11/2}$.

[c] Band(F): band based on 43/2 level.

(HI,xnγ) 1995Sa31 (continued)

$\gamma(^{157}Hf)$

E_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.[†]	Comments
(8.0)	4224.9	$37/2^-$	4216.9	$35/2^-$		E_γ: γ not observed, but presence deduced from γγ coincidences.
(8.3)	2805.1	$27/2^-$	2796.8			E_γ: γ not observed, but presence deduced from γγ coincidences.
70.3	2875.4	$29/2^+$	2805.1	$27/2^-$	E1	
99.3	2805.1	$27/2^-$	2705.9	$25/2^-$	M1	
111.0	111.0	$9/2^-$	0.0	$7/2^-$	M1	
114.5	2796.8		2682.3	$23/2^-$	M1	
222.2	5020.2	$41/2^+$	4798.0	$37/2^+$		
262.7	5020.2	$41/2^+$	4757.5	39/2		
269.8	1859.7	$21/2^-$	1589.9	$17/2^-$	E2	
277.4	3938.4	$33/2^-$	3660.9	$31/2^{(-)}$		
278.5	4216.9	$35/2^-$	3938.4	$33/2^-$		
286.5	4224.9	$37/2^-$	3938.4	$33/2^-$		
291.8	6106.9	(49/2)	5815.1	47/2		
368.5	3660.9	$31/2^{(-)}$	3292.4	$29/2^-$		
377.0	3938.4	$33/2^-$	3561.4	$31/2^-$		
387.9	2682.3	$23/2^-$	2294.4	$23/2^{(-)}$		
392.5	6499.4	(51/2)	6106.9	(49/2)		
395.8	5416.0	43/2	5020.2	$41/2^+$		
399.1	5815.1	47/2	5416.0	43/2		
411.4	2705.9	$25/2^-$	2294.4	$23/2^{(-)}$		
434.7	2294.4	$23/2^{(-)}$	1859.7	$21/2^-$		
532.7	4757.5	39/2	4224.9	$37/2^-$		
586.5	3292.4	$29/2^-$	2705.9	$25/2^-$		
612.2	4798.0	$37/2^+$	4185.8	$33/2^+$		
635.8	1589.9	$17/2^-$	954.1	$13/2^-$		
646.0	3938.4	$33/2^-$	3292.4	$29/2^-$		
655.6	4216.9	$35/2^-$	3561.4	$31/2^-$		
756.3	3561.4	$31/2^-$	2805.1	$27/2^-$		
843.1	954.1	$13/2^-$	111.0	$9/2^-$		
846.2	2705.9	$25/2^-$	1859.7	$21/2^-$		
1310.4	4185.8	$33/2^+$	2875.4	$29/2^+$		

[†] From authors and based in intensity balances.

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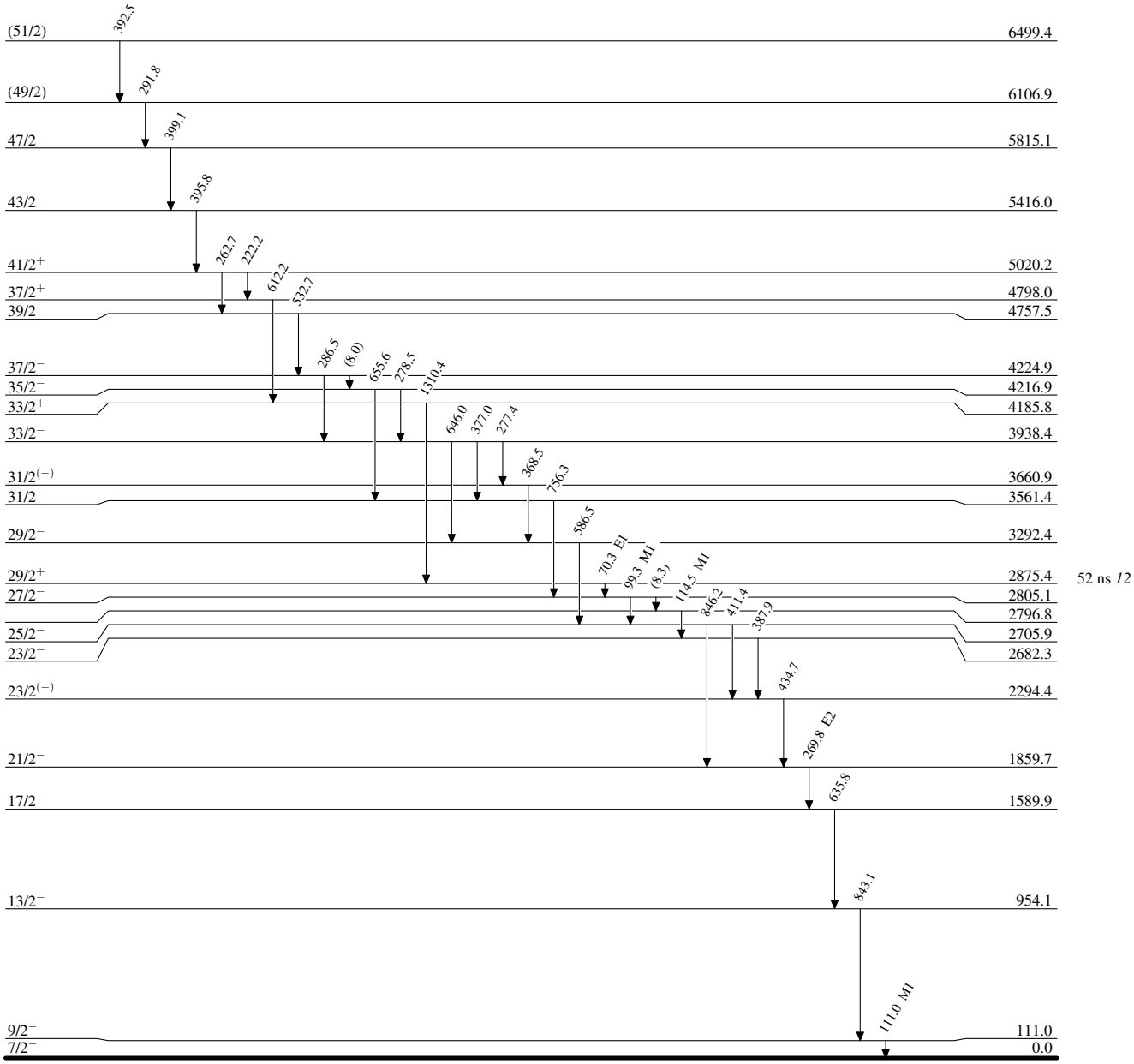
Level Scheme



$^{157}_{72}Hf_{85}$

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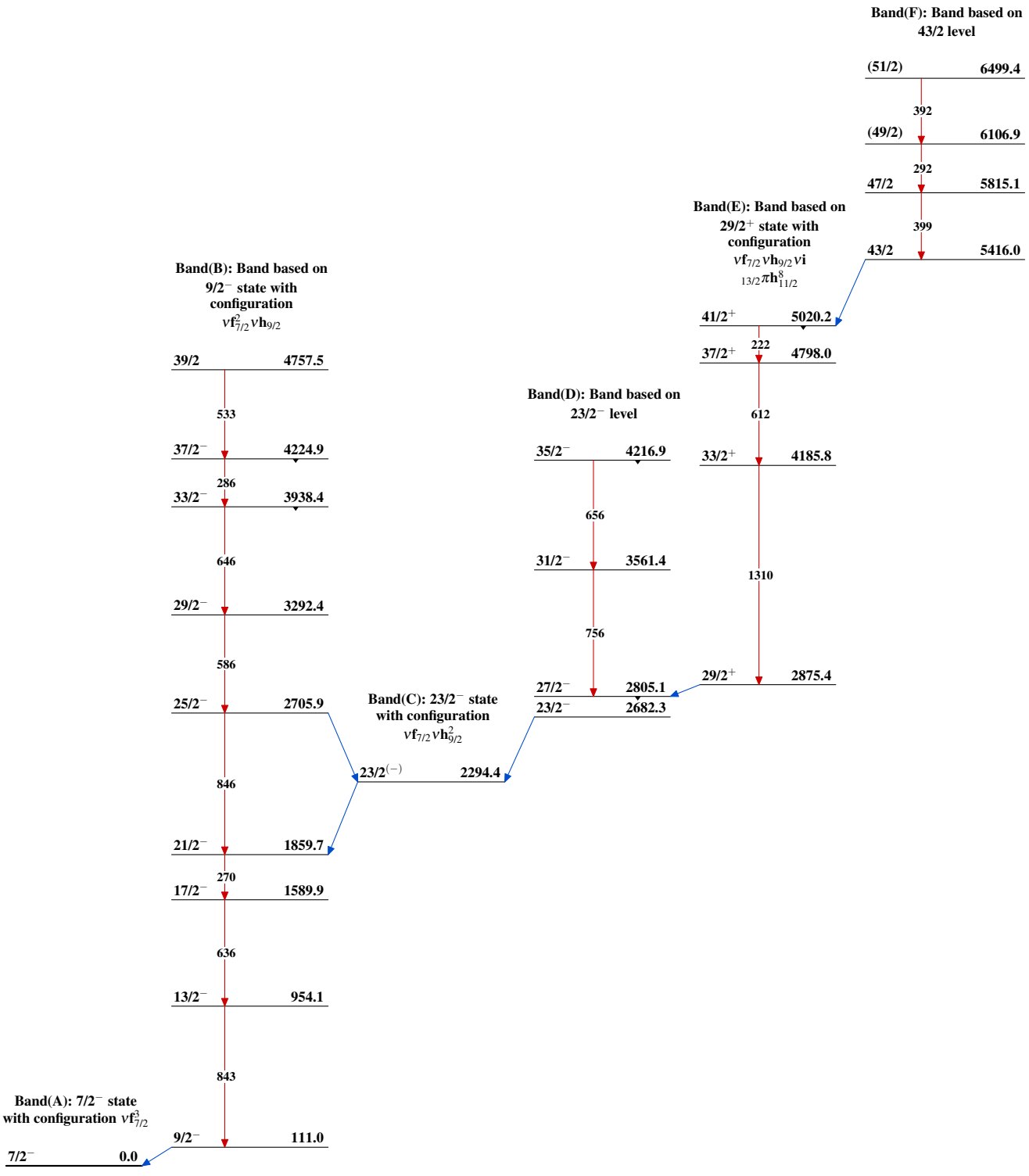

$^{157}_{72}Hf_{85}$