^{92}Mo(^{54}Fe,αpnγ) 2000Ri13

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 154, 1 (2018)	20-Nov-2018

E=240 MeV. Measured Eγ and $\gamma\gamma$ using GASP spectrometer consisting of 40 high efficiency Compton-suppressed HPGe detectors and an 80-element BGO multiplicity filter.

^{140}Tb Levels

E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡
x@	(7$^+$)	551.9+x# *4*	(10$^+$)	1454.7+x@ *5*	(13$^+$)	2623.0+x# *6*	(16$^+$)
118.7+x# *3*	(8$^+$)	805.4+x@ *5*	(11$^+$)	1837.1+x# *5*	(14$^+$)	3042.9+x@ *6*	(17$^+$)
292.4+x@ *4*	(9$^+$)	1137.2+x# *5*	(12$^+$)	2217.9+x@ *5*	(15$^+$)		

† From least-squares fit to Eγ's assuming Δ(Eγ)=0.3 keV for each Eγ.

‡ From 2000Ri13 (different from values in Adopted Levels, Gammas which were incremented by 1), except for g.s. J^π (here the state with E(level)=x). The assignments are based on ΔJ=1 intraband transitions, ΔJ=2 for one in-band transition, and syst of less heavy isotones.

Band(A): $\pi h_{11/2}\nu h_{11/2}$, α=0 (signature inversion between here and Adopted).

@ Band(a): $\pi h_{11/2}\nu h_{11/2}$, α=1 (signature inversion between here and Adopted).

γ(^{140}Tb)

DCO ratios obtained with gates on dipole transitions (for the GASP geometry): 1.0 for dipole, 2.0 for quadrupole transitions, respectively.

Eγ	Iγ	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.	Comments
118.7	100	118.7+x	(8$^+$)	x	(7$^+$)	D	DCO=1.13 *20*.
173.7	94	292.4+x	(9$^+$)	118.7+x	(8$^+$)	D	DCO=1.0 *1*.
253.5	27	805.4+x	(11$^+$)	551.9+x	(10$^+$)	D	DCO=0.94 *13*.
259.5	41	551.9+x	(10$^+$)	292.4+x	(9$^+$)	D	DCO=0.75 *8*.
317.6	10	1454.7+x	(13$^+$)	1137.2+x	(12$^+$)	D	DCO=1.03 *18*.
331.8	19	1137.2+x	(12$^+$)	805.4+x	(11$^+$)	D	DCO=0.68 *17*.
380.8	9	2217.9+x	(15$^+$)	1837.1+x	(14$^+$)		
382.6	12	1837.1+x	(14$^+$)	1454.7+x	(13$^+$)		
405.0	<5	2623.0+x	(16$^+$)	2217.9+x	(15$^+$)		
433.2	6	551.9+x	(10$^+$)	118.7+x	(8$^+$)		
513.0	7	805.4+x	(11$^+$)	292.4+x	(9$^+$)		
585.3	12	1137.2+x	(12$^+$)	551.9+x	(10$^+$)	Q	DCO=1.9 *4*.
649.3	5.5	1454.7+x	(13$^+$)	805.4+x	(11$^+$)		
699.8	5.1	1837.1+x	(14$^+$)	1137.2+x	(12$^+$)		
763.2	5.9	2217.9+x	(15$^+$)	1454.7+x	(13$^+$)		
785.9	<5	2623.0+x	(16$^+$)	1837.1+x	(14$^+$)		
825.0	<4	3042.9+x	(17$^+$)	2217.9+x	(15$^+$)		

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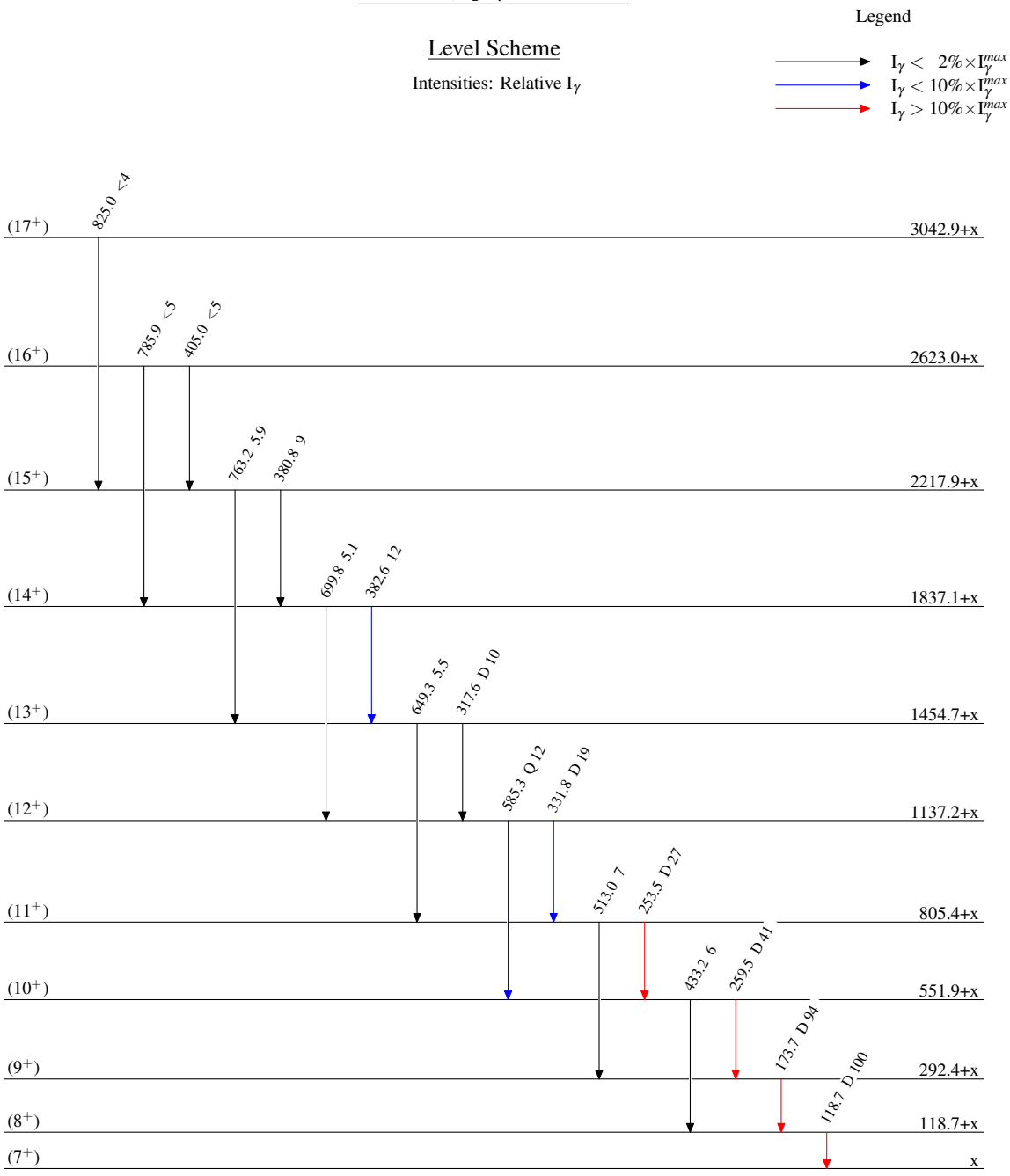
Level Scheme

Intensities: Relative I_γ



$^{140}_{65}Tb_{75}$

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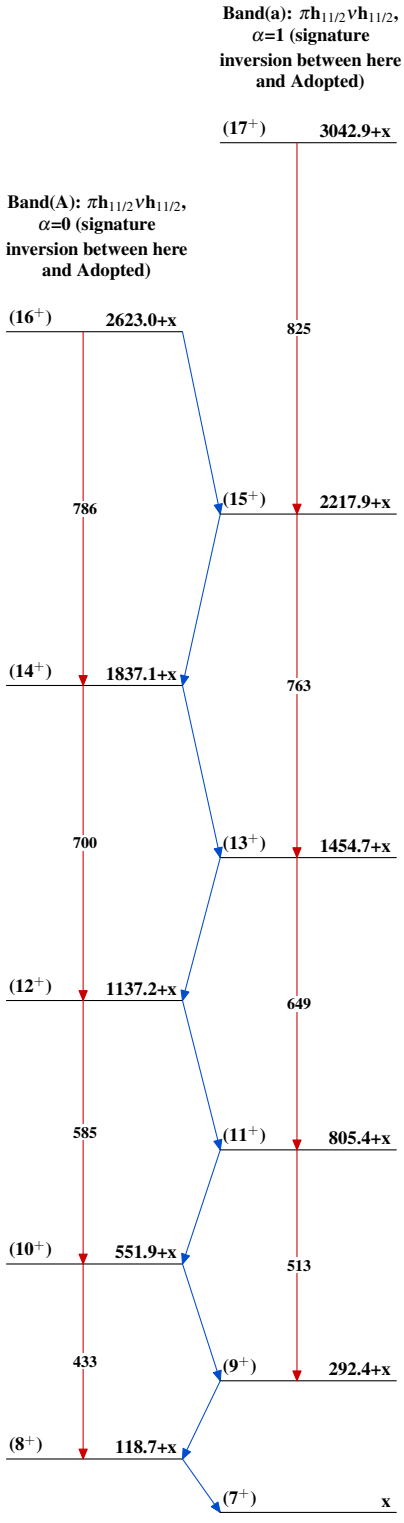

$^{140}_{65}Tb_{75}$