^{186}W(^{19}F,5nγ) 1994Da17

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 192,1 (2023)	1-Aug-2023

Beam: E(^{19}F)=105,115 MeV; Target: stacked ^{186}W foils on thin carbon backings with a total thickness of ≈600 μg/cm^2; Detectors: 16 Ge(Li) detectors surrounded by a 50-element BGO array; Detected: Eγ, Iγ, $\gamma\gamma$ coin; 86 million and 36.5 million $\gamma\gamma$ events (fold≥10) were recorded at E(^{19}F)=115 MeV and 105 MeV, respectively.

^{200}Bi Levels

E(level)[†]	J$^\pi$	T$_{1/2}$	Comments
0	7$^+$	36.4 min *5*	J$^\pi$,T$_{1/2}$: From Adopted Levels.
0.0+y[‡]			Additional information 1.
193.0+y[‡] *10*			
431.0+y[‡] *15*			
720.0+y[‡] *18*			
1056.0+y[‡] *20*			
1432.0+y[‡] *23*			
1855.0+y[‡] *25*			
0.0+z[#]			Additional information 2.
199.0+z[#] *5*			
446.2+z[#] *7*			
740.7+z[#] *9*			
1083.8+z[#] *10*			
1475.2+z[#] *12*			
1918.8+z[#] *13*			
2417.8+z[#] *16*			
2970.7+z[#] *17*			
3577.7+z[#] *18*			

[†] From a least-squares fit to Eγ.
[‡] Band(A): Band 1.
[#] Band(B): Band 2.

γ(^{200}Bi)

E$_\gamma$[†]	E$_i$(level)	E$_f$	Mult.[‡]	E$_\gamma$[†]	E$_i$(level)	E$_f$	Mult.[‡]
193 *1*	193.0+y	0.0+y	(M1)	[x]383 *1*			
199.0 *5*	199.0+z	0.0+z	(M1)	391.4 *5*	1475.2+z	1083.8+z	(M1)
238 *1*	431.0+y	193.0+y	(M1)	423 *1*	1855.0+y	1432.0+y	(M1)
247.2 *5*	446.2+z	199.0+z	(M1)	443.6 *5*	1918.8+z	1475.2+z	(M1)
289 *1*	720.0+y	431.0+y	(M1)	[x]464 *1*			
294.5 *5*	740.7+z	446.2+z	(M1)	499.0	2417.8+z	1918.8+z	(M1)
[x]326 *1*				[x]541 *1*			
336 *1*	1056.0+y	720.0+y	(M1)	552.9 *5*	2970.7+z	2417.8+z	(M1)
343.1 *5*	1083.8+z	740.7+z	(M1)	607.0 *5*	3577.7+z	2970.7+z	(M1)
376 *1*	1432.0+y	1056.0+y	(M1)				

[†] From 1994Da17.

Continued on next page (footnotes at end of table)

^{186}W(^{19}F,5nγ) 1994Da17 (continued)

γ(^{200}Bi) (continued)

‡ From DCO ratios in 1994Da17, but the values are not given by the authors. The M1 assignment is favored from the intensity balances when gating on transitions above the level of interest. E2 admixtures are possible.

[x] γ ray not placed in level scheme.

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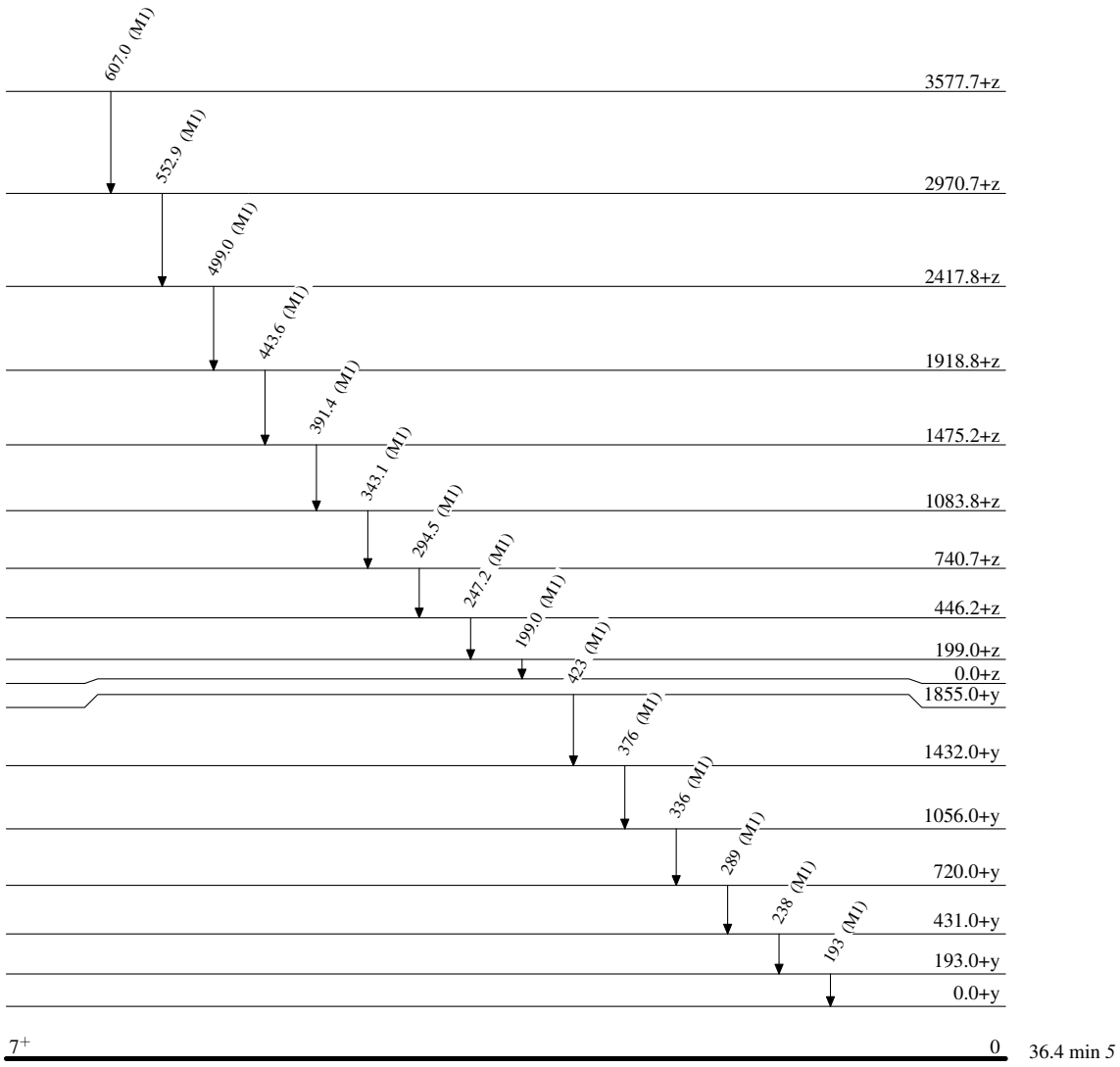
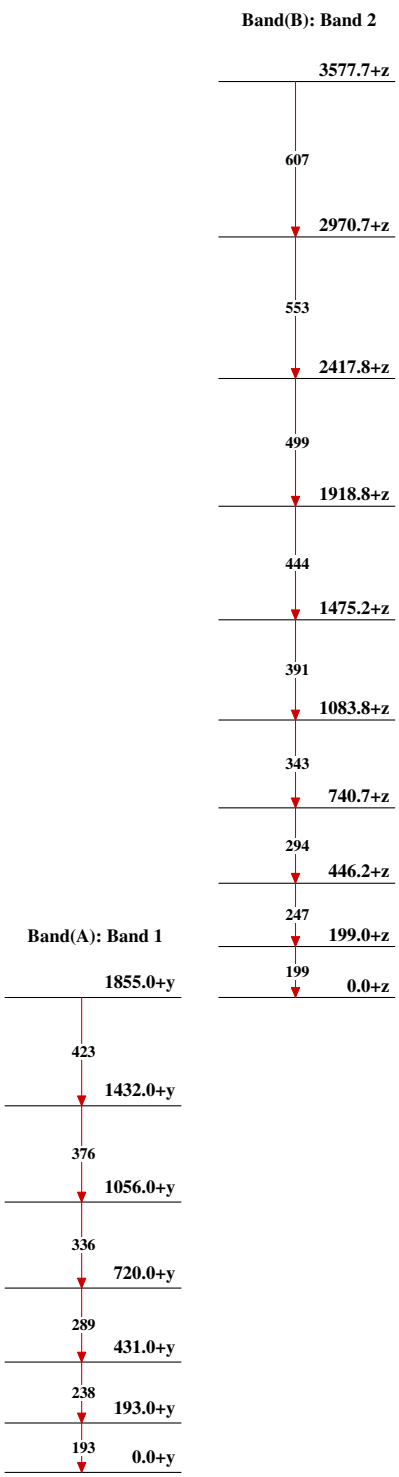
Level Scheme



$^{200}_{83}Bi_{117}$

$^{186}W(^{19}F,5n\gamma)$ 1994Da17



$^{200}_{83}Bi_{117}$