^{176}Yb(^{28}Si,Fγ) 1999Ho10

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2006

The erratum assigns negative parity to all those levels in the original publication where both parities were given.
1999Ho10: ^{101}Tc was obtained as fission fragment of ^{176}Yb+^{28}Si reaction at E(^{28}Si)=145 MeV. Measured γ, γ-γ using EUROGAM2 array of 52 escape-suppressed Ge detectors.

^{101}Tc Levels

E(level)[†]	J$^{\pi}$[‡]	Comments
0.0[#]	9/2$^+$	
15.6	5/2$^+$	E(level): from Adopted Levels for ^{101}Tc. Additional information 1.
208[@]	1/2$^-$	Additional information 2.
288.1[@] *4*	3/2$^-$	
395.36[@] *20*	5/2$^-$	
590.55[#] *25*	11/2$^+$	
621.0[@] *3*	7/2$^-$	
642.74[#] *24*	13/2$^+$	
886.8[@] *3*	9/2$^-$	
1172.5[@] *3*	11/2$^-$	
1331.5[#] *3*	15/2$^+$	
1399.9[#] *4*	17/2$^+$	
1500.8[@] *3*	13/2$^-$	
1845.8[@] *4*	(15/2$^-$)	
2170.7[#] *5*	(19/2$^+$)	
2171.5 *3*	(17/2$^-$)	
2250.7[@] *4*	(17/2$^-$)	
2271.5[#] *5*	(21/2$^+$)	
2413.5[a] *3*	(19/2$^-$)	
2616.3[a] *4*	(21/2$^-$)	
2871.5[a] *5*	(23/2$^-$)	
2918.0[&] *5*	(21/2$^+$,23/2$^+$)	
3096.7[a] *6*	(25/2$^-$)	
3135.2[&] *5*	(23/2$^+$,25/2$^+$)	
3499.3[&] *6*	(25/2$^+$,27/2$^+$)	
3886.9[&] *6*	(27/2$^+$,29/2$^+$)	
4231.0[&] *7*	(29/2$^+$,31/2$^+$)	

[†] From least-squares fit to Eγ's assuming Δ(Eγ)=0.3 keV on each γ.
[‡] From 1999Ho10 and from the erratum.
[#] Band(A): $\pi g_{9/2}$ band.
[@] Band(B): $\pi p_{1/2}$ band.
[&] Band(C): Band based on (19/2$^-$).
[a] Band(D): Band based on (21/2$^+$,23/2$^+$).

^{176}Yb(^{28}Si,Fγ) 1999Ho10 (continued)

$\gamma(^{101}Tc)$

E_γ	E_i(level)	J_i^π	E_f	J_f^π
81.0	288.1	$3/2^-$	208	$1/2^-$
107.1 *3*	395.36	$5/2^-$	288.1	$3/2^-$
162.7 *3*	2413.5	$(19/2^-)$	2250.7	$(17/2^-)$
202.4 *3*	2616.3	$(21/2^-)$	2413.5	$(19/2^-)$
216.8 *3*	3135.2	$(23/2^+,25/2^+)$	2918.0	$(21/2^+,23/2^+)$
223.7 *3*	621.0	$7/2^-$	395.36	$5/2^-$
225.2 *3*	3096.7	$(25/2^-)$	2871.5	$(23/2^-)$
242.1 *3*	2413.5	$(19/2^-)$	2171.5	$(17/2^-)$
255.2 *3*	2871.5	$(23/2^-)$	2616.3	$(21/2^-)$
265.7 *3*	886.8	$9/2^-$	621.0	$7/2^-$
286.0 *3*	1172.5	$11/2^-$	886.8	$9/2^-$
325.9 *3*	2171.5	$(17/2^-)$	1845.8	$(15/2^-)$
328.7 *3*	1500.8	$13/2^-$	1172.5	$11/2^-$
331.9 *3*	621.0	$7/2^-$	288.1	$3/2^-$
344.1 *3*	4231.0	$(29/2^+,31/2^+)$	3886.9	$(27/2^+,29/2^+)$
364.0 *3*	3499.3	$(25/2^+,27/2^+)$	3135.2	$(23/2^+,25/2^+)$
365.9 *3*	2616.3	$(21/2^-)$	2250.7	$(17/2^-)$
378.3 *3*	395.36	$5/2^-$	15.6	$5/2^+$
387.6 *3*	3886.9	$(27/2^+,29/2^+)$	3499.3	$(25/2^+,27/2^+)$
489.8 *3*	886.8	$9/2^-$	395.36	$5/2^-$
551.8 *3*	1172.5	$11/2^-$	621.0	$7/2^-$
581.5 *3*	3499.3	$(25/2^+,27/2^+)$	2918.0	$(21/2^+,23/2^+)$
591.0 *3*	590.55	$11/2^+$	0.0	$9/2^+$
614.0 *3*	1500.8	$13/2^-$	886.8	$9/2^-$
641.7 *3*	642.74	$13/2^+$	0.0	$9/2^+$
646.3 *3*	2918.0	$(21/2^+,23/2^+)$	2271.5	$(21/2^+)$
670.9 *3*	2171.5	$(17/2^-)$	1500.8	$13/2^-$
673.5 *3*	1845.8	$(15/2^-)$	1172.5	$11/2^-$
688.1 *3*	1331.5	$15/2^+$	642.74	$13/2^+$
741.4 *3*	1331.5	$15/2^+$	590.55	$11/2^+$
750.2 *3*	2250.7	$(17/2^-)$	1500.8	$13/2^-$
752† *1*	3886.9	$(27/2^+,29/2^+)$	3135.2	$(23/2^+,25/2^+)$
756.8 *3*	1399.9	$17/2^+$	642.74	$13/2^+$
770.8 *3*	2170.7	$(19/2^+)$	1399.9	$17/2^+$
839.8 *3*	2171.5	$(17/2^-)$	1331.5	$15/2^+$
863.8 *3*	3135.2	$(23/2^+,25/2^+)$	2271.5	$(21/2^+)$
871.6 *3*	2271.5	$(21/2^+)$	1399.9	$17/2^+$
1013.2 *3*	2413.5	$(19/2^-)$	1399.9	$17/2^+$

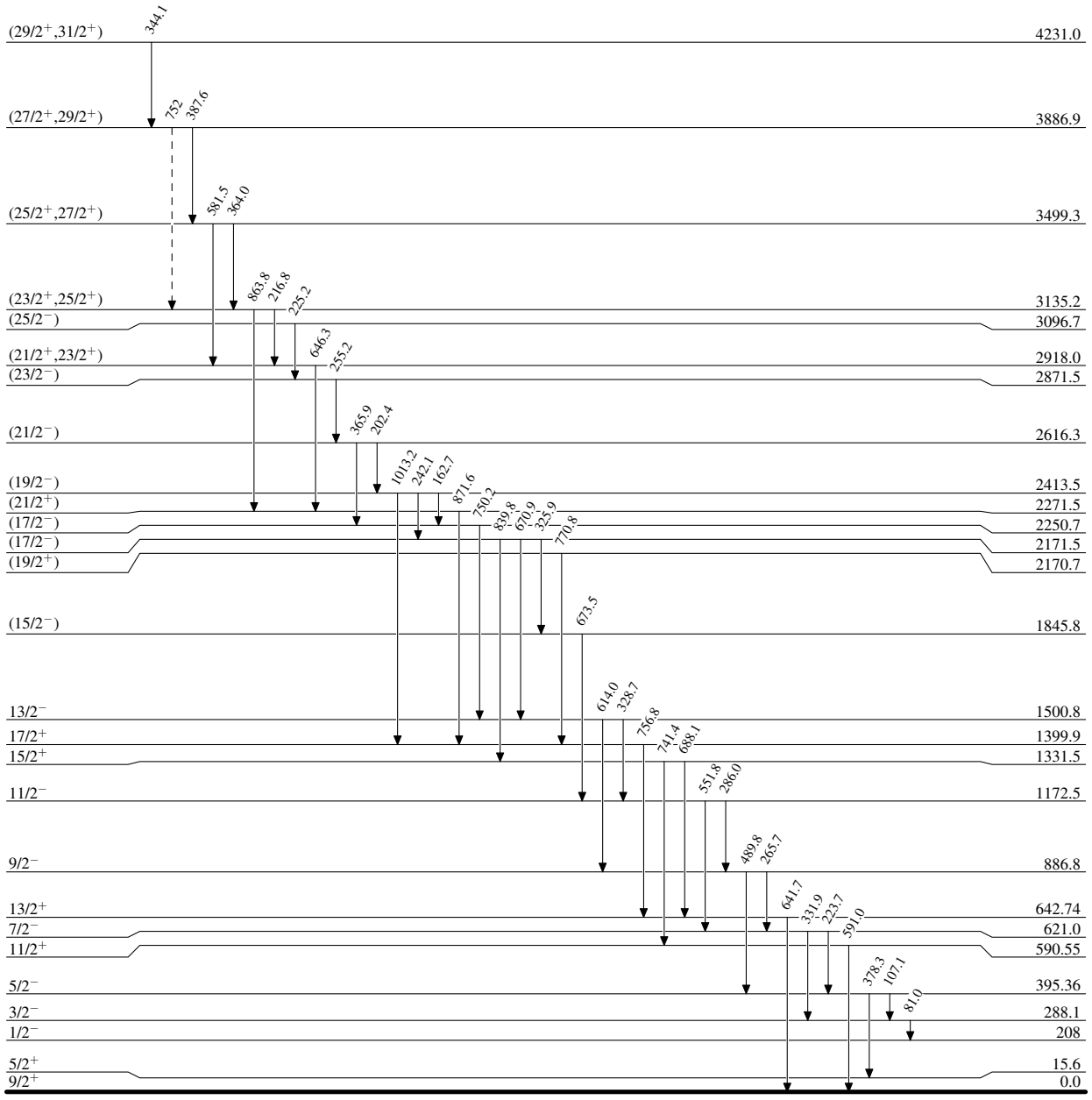
† Placement of transition in the level scheme is uncertain.

Legend

^{176}**Yb(**^{28}**Si,F**γ**)** **1999Ho10**

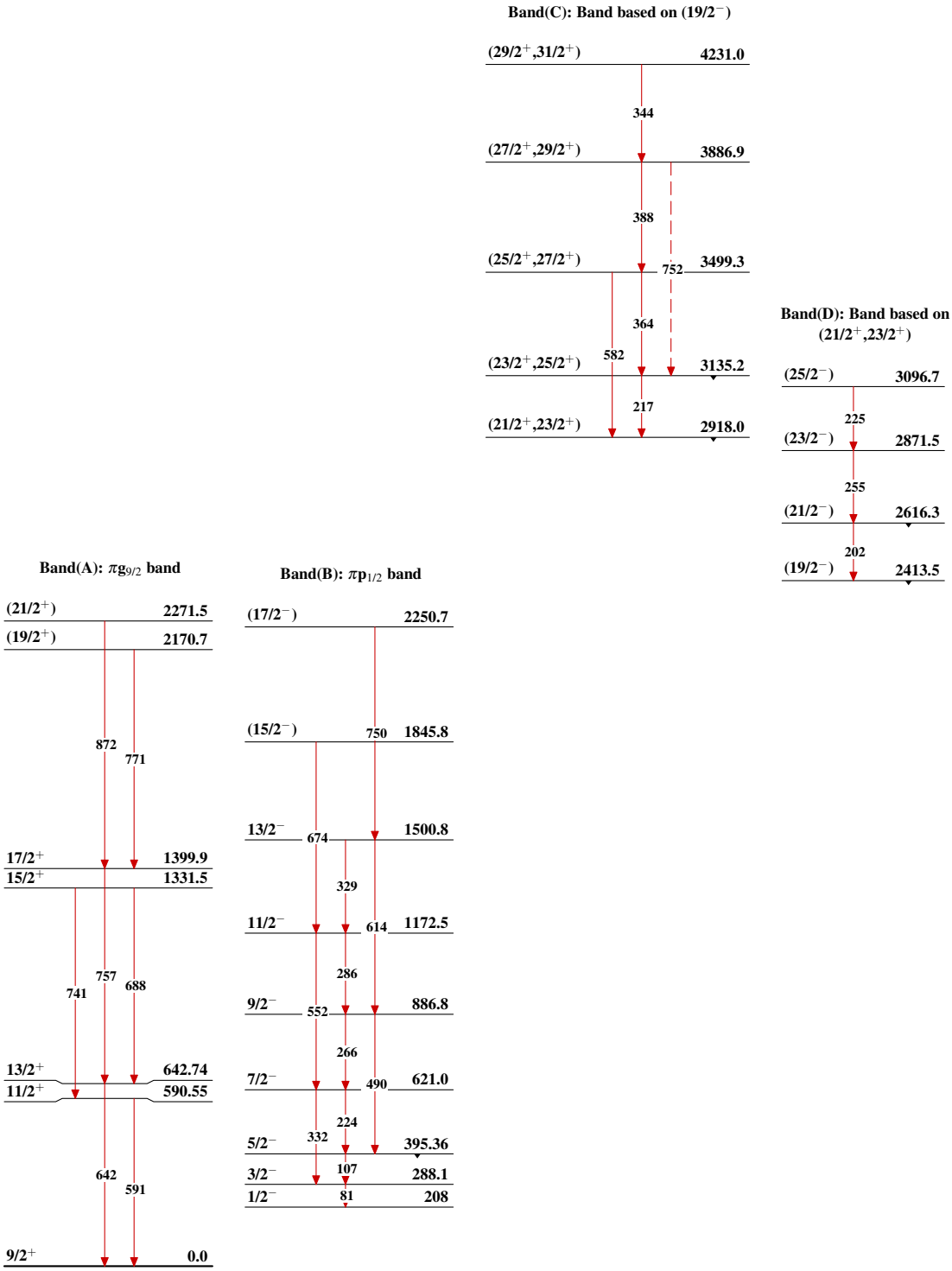
Level Scheme

γ Decay (Uncertain)



$^{101}_{43}Tc_{58}$

^{176}Yb(^{28}Si,Fγ) 1999Ho10



$^{101}_{43}Tc_{58}$