^{176}Yb(d,p) 1979Ta04,1979Ja23,1963Ve09

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 159, 1 (2019)	30-Aug-2019

1979Ta04: 96.2% enriched target. E=14 MeV. Measured scattered protons at θ=60°, 70°, 80°, and 90°. Magnetic spectrograph.
1963Ve09: 97.5% enriched target. E=12 MeV. Measured scattered protons at θ=25°, 35°, 45°, 55°, 65°, 77°, 107°, and 125°. Magnetic spectrograph, FWHM≈15 keV.
1979Ja23: natural Yb target. E=12.08 MeV. Measured scattered protons from θ=40° to 160° in steps of 10°. Detector: Si(Li) in a scattering chamber.
Others: 1975Ja19, 1975Ja18, 1974Ba85, 1974Ba26, 1972Sc04, 1966Bu16.

^{177}Yb Levels

E(level)†	Jπ‡	$T_{1/2}$[b]	L†	S#	Comments
0.0[c]	9/2+	1.911 h *3*			Jπ: From Adopted Levels.
109@[g]	7/2−	4.48 ns *8*			Jπ: From Adopted Levels.
123@[c]	11/2+				Jπ: From Adopted Levels.
220.9[g] *14*	(9/2−)[a]				
264.7&[c] *12*	13/2+		6		L: From 1963Ve09.
331.3[d] *16*	1/2−	6.41 s *2*			Jπ: From Adopted Levels.
375.9[d] *11*	(3/2)−		1	0.354	
423.5[d] *11*	(5/2)−		3	0.412	
526.4[d] *11*	(7/2)−		3	0.062	
612.9&[d] *12*	(9/2−)[a]				
706.1[e] *14*	(3/2)−		1	0.114	
715.4 *15*					
770.6[e] *11*	(5/2)−		3	0.425	
865.0[e] *15*	(7/2)−		3	0.127	
961.3 *20*					
975.3[e] *12*	(9/2−)		(4,5,7)		L: From 1963Ve09.
1048.6 *18*					
1108.9[e] *16*	(11/2−)[a]				
1125.5 *14*					
1169.0& *19*					
1221.3[h] *11*	(7/2)−		3	0.412	
1359.0[f] *11*	(3/2)−		1	0.756	L: From 1979Ja23. L=(1) in 1979Ta04.
1443.6[f] *12*	(5/2)−		3	0.223	
1493.6 *12*	(3/2)+		2	0.141	S: 0.094 for Jπ=5/2+ (1979Ta04).
1562.3[f] *14*	(7/2−)[a]				
1589.5 *28*					
1625.9 *17*					
1643.1 *11*					
1659.3 *12*					
1690.4 *12*					
1702.9 *12*					
1725.3[f] *12*	(9/2−)[a]				
1734?@					
1750.3 *14*					
1849.9& *13*					
1863.3 *12*					
1876?@					
1899.0[f] *21*	(11/2−)[a]				

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^{176}Yb(d,p) 1979Ta04,1979Ja23,1963Ve09 (continued)

^{177}Yb Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	L[†]	S[#]	Comments
1921.0 *12*	(3/2)	1,2	0.349	S: 0.480 for J$^{\pi}$=3/2^{+} (1979Ta04).
1936.3 *12*				
1957.3 *12*				
1985.9 *12*				
1999.4 *12*	(3/2)$^{+}$	2	0.253	S: 0.167 for J$^{\pi}$=5/2^{+} (1979Ta04).
2022.5 *12*				
2060.6[&] *14*				
2080.2 *16*				
2115.6 *12*				
2144.9[f] *16*	(13/2^{-})[a]			
2161.2 *16*	(3/2)$^{+}$	2	0.381	S: 0.254 for J$^{\pi}$=5/2^{+} (1979Ta04).
2174.5 *27*				
2194.0 *16*				
2210.9 *16*				
2227.2 *14*				
2242.5 *15*				
2274.6 *14*				
2291.7 *14*				
2308.1 *13*				
2325.3 *14*				
2340.6 *20*				
2371.6[&] *32*				
2384.6 *16*				
2396.3 *16*				
2423.5 *27*				
2441.7 *33*				
2460.7 *17*				
2476.2 *15*				
2487[@] *3*				
2508.7 *22*				
2525.3 *15*				
2533[@] *3*				
2546.6 *20*				
2560.9 *19*				
2568[@] *3*				
2584.8 *12*				
2601.8 *16*				
2622.6 *17*				
2635.1 *17*				
2653.1 *17*				
2667.4 *19*				
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2777[@]				
2806[@]				
2835[@]				
2856[@]				
2889[@]				
2935[@]				
2967[@]				
2984[@]				
3006[@]				

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^{176}Yb(d,p) 1979Ta04,1979Ja23,1963Ve09 (continued)

^{177}Yb Levels (continued)

† From 1979Ta04, unless otherwise stated.
‡ From the deduced L-transfer values and comparisons of experimental (d,p) cross sections with values calculated using the DWBA theory, and Nilsson model, unless otherwise stated.
# From DWBA analysis (1979Ta04), unless otherwise stated.
@ From 1963Ve09.
& Contains impurity from other Yb isotopes.
a From the assigned band structure (1979Ta04).
b From Adopted Levels.
c Band(A): $K^{\pi}=9/2^{+}$, $\nu 9/2[624]$ band.
d Band(B): $K^{\pi}=1/2^{-}$, $\nu 1/2[510]$ band.
e Band(C): $K^{\pi}=3/2^{-}$, $\nu 3/2[512]$ band.
f Band(D): $K^{\pi}=3/2^{-}$, $\nu 3/2[501]$ band.
g Band(E): $K^{\pi}=7/2^{-}$, $\nu 7/2[514]$ band.
h $K^{\pi}=7/2^{-}$, $\nu 7/2[503]$.

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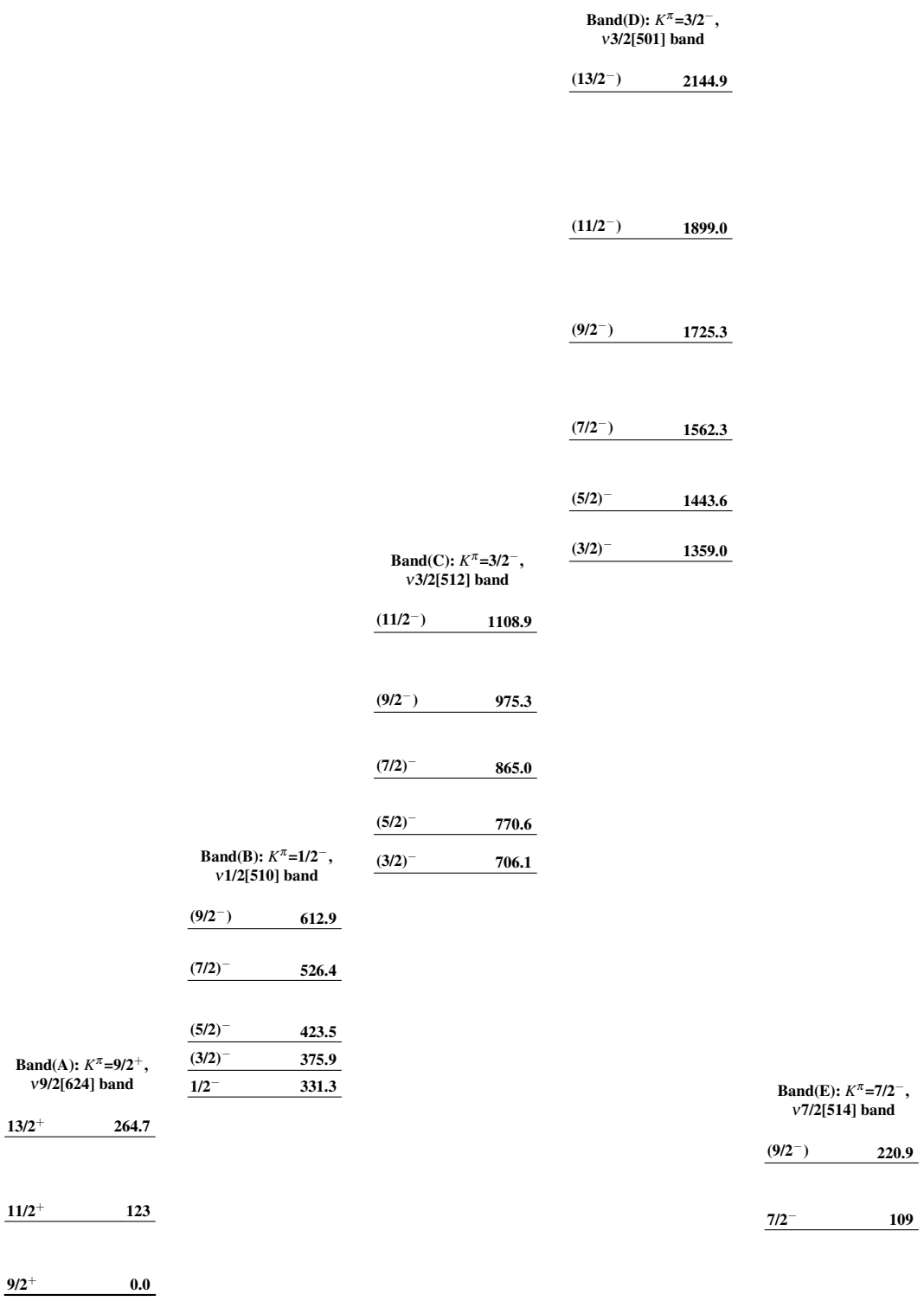

$^{177}_{70}Yb_{107}$