

$^{176}\text{Yb}(p,t) E=19 \text{ MeV}$ 1973Oo01,1970Oo01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, Huo Junde		NDS 87, 15 (1999)	1-Nov-1998

Target: 96.43% enriched ^{176}Yb . FWHM=10 to 12 keV. Angular distributions were measured at $\theta=12.5^\circ$, 27.5° , 42.5° , and 55° to identify $L=0$ angular momentum transfers. $L \neq 0$ transfers were tentatively identified by comparison of the data with shapes of angular distributions to well-known states.

 ^{174}Yb Levels

E(level) [‡]	J ^π [†]	L	Comments
0.0 [#]	0 ⁺	0	
76 [#] 5	(2 ⁺)	(2)	
254 [#] 5	(4 ⁺)	(4)	
526 [#] 5	(6 ⁺)		
895 [#] 5	(8 ⁺)		
1316 ^c 5	(2 ⁻)		
1386 ^c 5	(3 ⁻)		
1489 [@] 5	0 ⁺	0	
1520 5			
1564 [@] 5	(2 ⁺)		
1608 10			
1636 ^b 5	(2 ⁺)	(2)	
1676 10			
1712 [@] 5	(4 ⁺)		E(level): doublet.
1783 5			
1807 ^b 5	(4 ⁺)		
1852 5			E(level): possible doublet.
1886 ^{&} 5	0 ⁺	0	
1959 ^{&} 5	(2 ⁺)		
2066 10			E(level): possible doublet.
2100 ^a 5	0 ⁺	0	
2127 ^{&} 5	(4 ⁺)		
2174 ^a 5	(2 ⁺)		E(level): doublet.
2246 10			
2300 5			
2342 ^a 10	(4 ⁺)		
2375 5			E(level): possible doublet.
2436 5			
2469 5			
2520 10			
2558 5			
2588 5			
2620 5			
2662 5			
2720 5			
2753 5			
2821 5	(0 ⁺)	(0)	
2840 10			
2882 5			
2904 5	(0 ⁺)	(0)	
3004 5			
3042 5			

Continued on next page (footnotes at end of table)

 $^{176}\text{Yb}(\text{p,t}) \text{ E}=19 \text{ MeV}$ [1973Oo01](#), [1970Oo01](#) (continued) ^{174}Yb Levels (continued)

† Spins were assigned on the basis of rotational structure and angular momentum transfers. These L-values have been determined by comparison with shapes of angular distributions for transfers to known states. L=0 transfers have a very distinctive oscillatory pattern which gives a firmer identification. Determination of L=2 and 4 transfers is more tentative.

‡ From [1973Oo01](#).

$K^\pi=0^+$ g.s.-rotational band.

@ $K^\pi=0^+$ band.

& $K^\pi=0^+$ band.

^a $K^\pi=0^+$ band.

^b $K^\pi=2^+$ γ -vibrational band.

^c $K^\pi=2^-$ octupole-vibrational band.