

$^{170}\text{Yb}(\text{p,t})$  1973Oo01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 111, 1807 (2010)	15-Jun-2010

E(p)=19 MeV, FWHM(average)=10-12 keV; isotope-separated Yb targets (81.4%  $^{170}\text{Yb}$  enrichment); measured E(level) (mag spect, position-sensitive detectors), angular distributions, absolute differential cross sections.

 $^{168}\text{Yb}$  Levels

E(level)	$J^{\pi\dagger}$	$L^{\ddagger}$	Comments
0.0 <sup>#</sup>	0 <sup>+</sup>	0	
87 <sup>#</sup> 5	2 <sup>+</sup>	2	
284 <sup>#</sup> 5	4 <sup>+</sup>	4	
586 <sup>#</sup> 5	6 <sup>+</sup>	(6)	
886? 10			Possible unidentified contaminant.
943? 10			Possible unidentified contaminant.
984 <sup>@</sup> 5	2 <sup>+</sup>	2	
1064 5			
1098 5			
1161 7			Includes contaminant component.
1168 <sup>@</sup> 5	4 <sup>+</sup>	(4)	Includes contaminant component.
1198 <sup>&amp;</sup> 5	0 <sup>+</sup>	0	
1231 5			
1277 <sup>&amp;</sup> 5	2 <sup>+</sup>	(2)	
1340 7	(0 <sup>+</sup> )	(0)	Includes contaminant component.
1480 <sup>&amp;</sup> 5	(4 <sup>+</sup> )	(4)	Possible doublet (broader than normal peak).
1543 <sup>a</sup> 5	0 <sup>+</sup>	0	
1600 <sup>a</sup> 5	(2 <sup>+</sup> )	(2)	Doublet (broader than normal peak).
1698 5			
1727 <sup>a</sup> 5	(4 <sup>+</sup> )	(4)	
1767 5			
1793 5			
1859 5			Possible doublet (broader than normal peak).
1904 <sup>b</sup> 5	(0 <sup>+</sup> )	(0)	
1973 <sup>b</sup> 5	(2 <sup>+</sup> )	(2)	
1993 5			
2092 7			
2121 7			
2160 7	(0 <sup>+</sup> )	(0)	
2173 12			
2186 7			
2292 7			
2327 7			
2360 12			
2464 12			
2500 12			

<sup>†</sup> From angular distributions and relative cross sections (authors' values). See  $^{168}\text{Yb}$  Adopted Levels for evaluator's assignments.

<sup>‡</sup> From comparison of angular distributions with corresponding shapes for transfers to known states; probable or implied values are in parentheses.

<sup>#</sup> Band(A):  $K^{\pi}=0^{+}$  g.s. band.

<sup>@</sup> Band(B):  $K^{\pi}=2^{+}$   $\gamma$ -vibration band.

Continued on next page (footnotes at end of table)

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 $^{170}\text{Yb}(\text{p,t})$  **1973Oo01 (continued)**

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 $^{168}\text{Yb}$  Levels (continued)

- & Band(C):  $K^\pi=0^+$  band.  
<sup>a</sup> Band(D):  $K^\pi=0^+$  band.  
<sup>b</sup> Band(E):  $K^\pi=0^+$  band.

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			<b>Band(E): <math>K^\pi=0^+</math> band</b>
			<u>(2<sup>+</sup>) 1973</u>
			<u>(0<sup>+</sup>) 1904</u>
		<b>Band(D): <math>K^\pi=0^+</math> band</b>	
		<u>(4<sup>+</sup>) 1727</u>	
		<u>(2<sup>+</sup>) 1600</u>	
	<b>Band(C): <math>K^\pi=0^+</math> band</b>	<u>0<sup>+</sup> 1543</u>	
	<u>(4<sup>+</sup>) 1480</u>		
		<u>2<sup>+</sup> 1277</u>	
	<b>Band(B): <math>K^\pi=2^+</math> <math>\gamma</math>-vibration band</b>	<u>0<sup>+</sup> 1198</u>	
	<u>4<sup>+</sup> 1168</u>		
		<u>2<sup>+</sup> 984</u>	
	<b>Band(A): <math>K^\pi=0^+</math> g.s. band</b>		
	<u>6<sup>+</sup> 586</u>		
	<u>4<sup>+</sup> 284</u>		
	<u>2<sup>+</sup> 87</u>		
	<u>0<sup>+</sup> 0.0</u>		