

**(HI,xnγ):SDB 1987Go35,1994Mu16**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 110, 507 (2009)	1-Oct-2008

Includes (HI,xnpy).

1987Go35: E(<sup>56</sup>Fe)=250 MeV, E(<sup>52</sup>Cr)=240 MeV. Measured: γ, γγ, pγ.

1994Mu16: <sup>112</sup>Sn(<sup>37</sup>Cl,2p2nγ) E=187 MeV and <sup>118</sup>Sn(<sup>31</sup>P,4nγ) E=160 MeV. Measured Eγ, particle-γγ coin using γ- and particle-detector arrays. Deduced SD band.

<sup>145</sup>Tb Levels

E(level)	J <sup>π</sup> †	Comments
y	(11/2 <sup>-</sup> )	
639.9+y?	(13/2 <sup>-</sup> )	
z‡	J	Percent population≈1 (1994Mu16).
627.1+z‡	J+2	
1314.9+z‡	J+4	
2061.9+z‡	J+6	
2868.0+z‡	J+8	
3732.5+z‡	J+10	
4652.5+z‡	J+12	
5632.8+z‡	J+14	
6672.1+z‡	J+16	
7769.4+z‡	J+18	
8924.4+z‡	J+20	
10136.3+z‡	J+22	
11407.6+z‡	J+24	
12731.6+z‡	J+26	
14118.6+z‡	J+28	

† Adopted values.

‡ Band(A): SD band (1994Mu16). Configuration=(π 6)<sup>+1</sup>(π 9/2[404])<sup>+2</sup> (1994Mu16).

γ(<sup>145</sup>Tb)

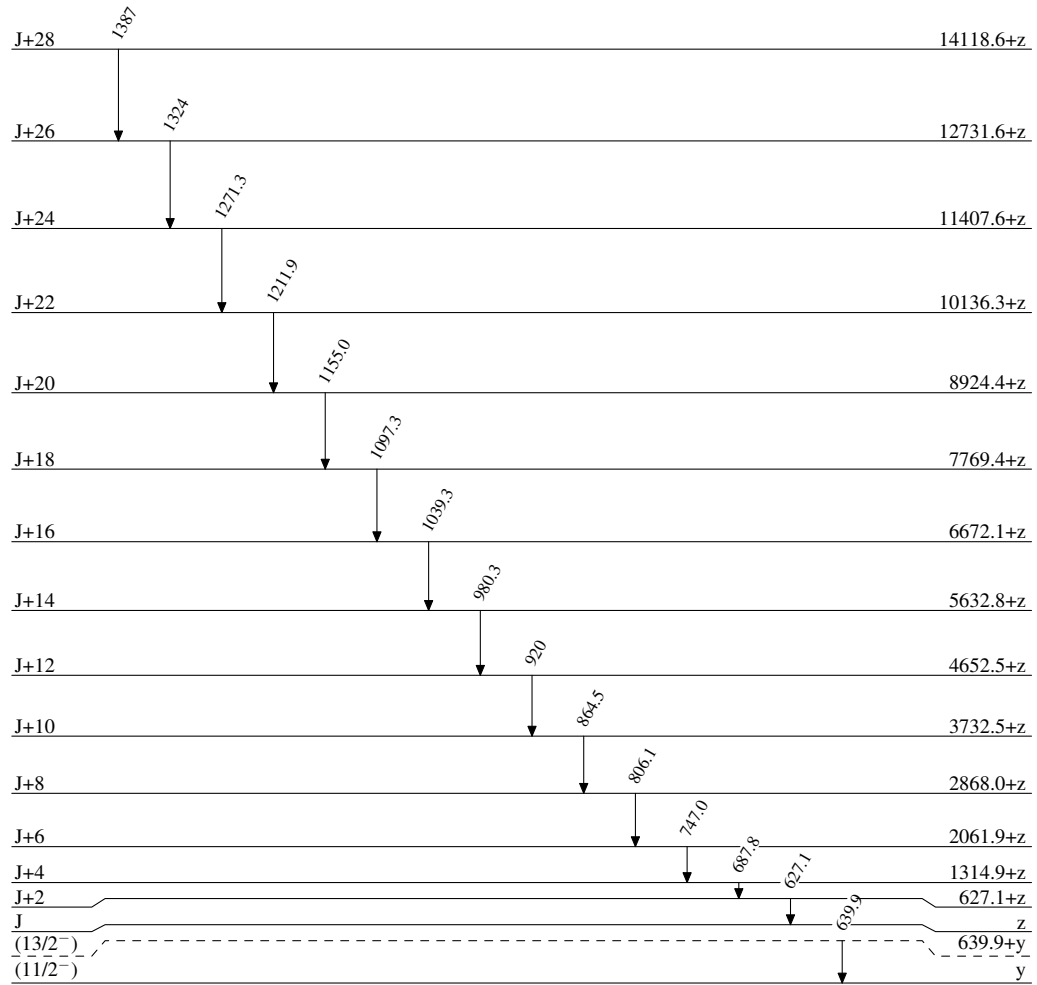
E <sub>γ</sub>	I <sub>γ</sub>	E <sub>i</sub> (level)	E <sub>γ</sub>	I <sub>γ</sub>	E <sub>i</sub> (level)	J <sub>i</sub> <sup>π</sup>	E <sub>f</sub>	J <sub>f</sub> <sup>π</sup>
<sup>x</sup> 124.5 3	7 1		<sup>x</sup> 439.6 4					
<sup>x</sup> 163.7 3			<sup>x</sup> 474.7 3	15 2				
<sup>x</sup> 172.0 5			<sup>x</sup> 479.9 4					
<sup>x</sup> 189.1 4			<sup>x</sup> 498.9 3	27 3				
<sup>x</sup> 191.9 3			<sup>x</sup> 514.4					
<sup>x</sup> 199.0 3			627.1 4		627.1+z	J+2	z	J
<sup>x</sup> 223.0 3			639.9 4		639.9+y?	(13/2 <sup>-</sup> )	y	(11/2 <sup>-</sup> )
<sup>x</sup> 233.4 3			687.8 4		1314.9+z	J+4	627.1+z	J+2
<sup>x</sup> 243.3 3			<sup>x</sup> 702 1					
<sup>x</sup> 287.6 3			747.0 3		2061.9+z	J+6	1314.9+z	J+4
<sup>x</sup> 298.9 3	44 2		806.1 5		2868.0+z	J+8	2061.9+z	J+6
<sup>x</sup> 307.2 3	12 2		<sup>x</sup> 806.3 3	32 3				
<sup>x</sup> 331.5 3	48 3		<sup>x</sup> 848 1					
<sup>x</sup> 345.5 3			864.5 6		3732.5+z	J+10	2868.0+z	J+8
<sup>x</sup> 355.9 3			<sup>x</sup> 905.9 5	100 5				

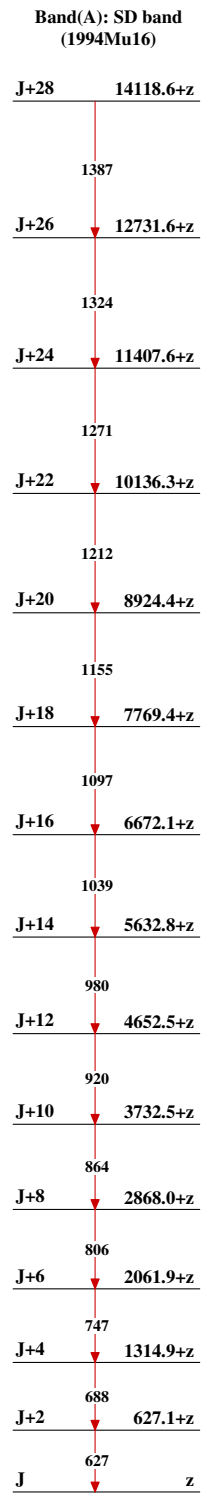
Continued on next page (footnotes at end of table)

**(HI,xn $\gamma$ ):SDB 1987Go35,1994Mu16 (continued)** $\gamma(^{145}\text{Tb})$  (continued)

$E_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	$E_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$
920 1	4652.5+z	J+12	3732.5+z	J+10	1155.0 9	8924.4+z	J+20	7769.4+z	J+18
980.3 11	5632.8+z	J+14	4652.5+z	J+12	1211.9 9	10136.3+z	J+22	8924.4+z	J+20
<sup>x</sup> 988.7 5					1271.3 9	11407.6+z	J+24	10136.3+z	J+22
1039.3 6	6672.1+z	J+16	5632.8+z	J+14	1324 2	12731.6+z	J+26	11407.6+z	J+24
1097.3 5	7769.4+z	J+18	6672.1+z	J+16	1387 1	14118.6+z	J+28	12731.6+z	J+26

<sup>x</sup>  $\gamma$  ray not placed in level scheme.

(HI,xn $\gamma$ ):SDB 1987Go35,1994Mu16Level SchemeIntensities: Relative  $I_\gamma$  $^{145}_{65}\text{Tb}_{80}$

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