		History	
Туре	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 93, 33 (2001)	11-May-2001

1991Sa25:  $E(^{6}Li)=38$  MeV,  $E(^{10}B)=42$  MeV. Measured E $\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ ,  $\gamma(\theta)$ , ce using four coaxial Ge detectors for  $\gamma$  rays and a mini-orange spectrometer for electrons.

2001St04: E(<sup>10</sup>B)=47 MeV. Measured Eγ, γγ using YRAST ball with 28 suppressed Ge detectors. Deduced sideband partner of πh<sub>11/2</sub>νh<sub>11/2</sub> band, and interpreted as a chiral doublet structure based on systematics (similar doublet band structures in <sup>132</sup>La, <sup>134</sup>Pr and <sup>136</sup>Pm) and 3D tilted-axis cranking calculations.
A 14.1 ns 4 at 556+x was reported by 1979GaZW in <sup>128</sup>Te(<sup>6</sup>Li,4nγ) from observation of delayed γ-rays of 97, 116, 152 and 191.

A 14.1 ns 4 at 556+x was reported by 1979GaZW in <sup>128</sup>Te(<sup>6</sup>Li,4n $\gamma$ ) from observation of delayed  $\gamma$ -rays of 97, 116, 152 and 191. 1991Sa25 report these four intense  $\gamma$  rays in the prompt spectra, but their search (with a timing resolution of  $\approx$ 9 ns) for levels with T<sub>1/2</sub> more than a few nanoseconds proved negative.

For levels built on the 5<sup>-</sup> isomer at 163.2, 1991Sa25 assume that the 97-115 cascade feeds this isomer directly, although they cannot rule out the possibility of an undetected low-energy transition at the bottom of this cascade.

### <sup>130</sup>Cs Levels

Levels are from 1991Sa25, unless otherwise noted.

E(level)	$J^{\pi \dagger}$	Comments
0.0	1+	
80.31 8	2+	
131.37 11	2+	
148.20 10	$(2^{-})$	
163.2	5-	Additional information 1.
170.49 8		
253.87 10	(1+2+)	
270.20 11	$(1^{+}, 3^{+})$	
218.80 10	0	
$375.60^{a}$ 15	7-	
432.13 14	7	
530.2 4		
565.50 <sup>&amp;</sup> 17	8-	
618.12 <sup><i>a</i></sup> 24	8-	
688.35 <i>21</i>		
878.26 <sup>&amp;</sup> 25	9-	
954.3 <i>4</i>		
962.1 4		
974.8 <sup>#</sup> 4	9+	Additional information 2.
997.25 <sup>a</sup> 23	9-	
1126.5 <sup>#</sup> 4	$(10)^{+}$	
1172.1 <sup>&amp;</sup> 3	$10^{-}$	
1242.9 4		
1265.4 <sup><i>a</i></sup> 3	10-	
1479.8 <sup>#</sup> 5	$11^{+}$	
1512.9 4	11-	
1673.8 <sup>‡@</sup>	$(11^{+})$	
1770.0 <sup>#</sup> 5	$(12)^+$	
1805.6 <sup><i>a</i></sup> 4		
1960.7 <sup>&amp;</sup> 4	(12) <sup>-</sup>	
2074.8 <sup>‡@</sup>	$(12^{+})$	

#### $^{124}$ Sn( $^{10}$ B,4n $\gamma$ ), $^{128}$ Te( $^{6}$ Li,4n $\gamma$ ) 1991Sa25,2001St04 (continued)

### <sup>130</sup>Cs Levels (continued)

E(level)	$J^{\pi \dagger}$	E(level)	$J^{\pi}$	E(level)	$J^{\pi \dagger}$	E(level)	Jπ†
$2086.1^{a} 4$ $2187.0^{\#} 5$ $2309.6^{\&} 5$	$(12)^{-}$ $(13)^{+}$	$2446.8^{\ddagger@}$ 2613.5 <sup>#</sup> 6 2796.6 <sup>@</sup> 6	$(13^+)$ $(14^+)$ $(14^+)$	2897.6 <sup>&amp;</sup> 5 3082.5 <sup>‡#</sup> 3249.8 <sup>‡@</sup>	(15 <sup>+</sup> ) (15 <sup>+</sup> )	3547.5 <sup>‡#</sup> 4040.5 <sup>‡#</sup>	(16 <sup>+</sup> ) (17 <sup>+</sup> )

<sup>†</sup> As proposed by 1991Sa25, based on  $\gamma(\theta)$  and  $\alpha(K)$ exp data. <sup>‡</sup> Level from 2001St04.

<sup>#</sup> Band(A):  $\Delta J=1$  band based on 9<sup>+</sup>. Possible configuration= $\nu h_{11/2}\pi h_{11/2}$ . See also comment for the band based on (11<sup>+</sup>).

<sup>@</sup> Band(a):  $\Delta J=1$  band based on (11<sup>+</sup>). This band is assigned (2001St04) as the sideband partner (chiral doublet structure) of  $vh_{11/2}\pi h_{11/2}$  configuration. Similar doublet bands are found (2001St04) in <sup>132</sup>La, <sup>134</sup>Pr and <sup>136</sup>Pm.

& Band(B): band based on 8<sup>-</sup>. Possible configuration= $vh_{11/2}\pi d_{5/2}$ .

<sup>*a*</sup> Band(C): band based on 7<sup>-</sup>. Possible configuration= $vh_{11/2}\pi g_{7/2}$ .

# $\gamma(^{130}Cs)$

A<sub>2</sub>, A<sub>4</sub>,  $\alpha$ (K)exp and K/L ratios are from 1991Sa25.

$E_{\gamma}^{\dagger}$	$I_{\gamma}^{\ddagger}$	$E_i$ (level)	$\mathbf{J}_i^{\pi}$	$E_f$	$\mathbf{J}_{f}^{\pi}$	Mult. <sup>#</sup>	δ#	Comments
44.3 <sup>@</sup> 1 51.1 1	17 3	314.52 131.37	2+	270.20 80.31	$(1^+, 3^+)$ $2^+$	D+Q		A <sub>2</sub> =-0.05 2.
60.6 <sup>@</sup> 1	100 10	314.52	2+	253.87	1.4			
80.3 1	100 10	80.31	21	0.0	1'			$A_2 = 0.00 I, A_4 = -0.02 Z.$
83.4° <i>I</i>		253.87		170.49				
90.2 <sup><sup>w</sup></sup> 1		170.49		80.31	2+			
96.8 <i>1</i>	75 8	375.60	7-	278.80	6-	M1(+E2)	-0.02 2	$A_2 = -0.25 \ 2, \ A_4 = -0.02 \ 2.$ $\alpha(K) \exp = 0.84 \ 12; \ K/L = 7.9 \ 14.$
115.6 <i>1</i>	94 9	278.80	6-	163.2	5-	M1+E2	-0.06 2	$A_2 = -0.30 \ I, A_4 = -0.02 \ 2.$ $\alpha(K) \exp[=0.61 \ I2; K/L=7.6 \ 20.$
117.6 <i>1</i>	<5	432.13		314.52				$A_2 = -0.2 I.$
138.8 <i>1</i>	<5	270.20	$(1^+, 3^+)$	131.37	2+			$A_2 = -0.28 \ 6.$
148.2 <i>1</i>	71	148.20	$(2^{-})$	0.0	$1^{+}$			$A_2 = 0.00 2.$
151.7 <i>I</i>	43 4	1126.5	(10)+	974.8	9+	M1(+E2)	-0.03 3	$A_2 = -0.29 \ 2, \ A_4 = -0.04 \ 3.$ $\alpha(K) \exp[=0.30 \ 6; \ K/L > 5.1.$
170.5 <sup>@</sup> 1		170.49		0.0	$1^{+}$			
173.5 <sup>@</sup> 1		253.87		80.31	2+			
183.2 1	6	314.52		131.37	$\frac{1}{2^{+}}$			$A_2 = -0.28 \ 3.$
189.9 <sup><i>a</i></sup> 1	89 <sup>a</sup> 9	270.20	(1+,3+)	80.31	2+	(M1+E2)	-0.06 2	$A_2 = -0.32$ 1, $A_4 = -0.03$ 2 for doublet. $\alpha$ (K)exp=0.14 1; K/L=8.7 15 for doublet.
189.9 <sup>a</sup> 1	89 <sup>a</sup> 9	565.50	8-	375.60	7-	(M1+E2)	-0.06 2	
242.5 3	23 2	618.12	8-	375.60	7-	M1+E2	-0.09 2	$A_2 = -0.34$ 2, $A_4 = -0.02$ 3. $\alpha$ (K)exp=0.066 7; K/L=8.2 14.
256.3 <sup>@</sup> 3		688.35		432.13				
260.0 <sup><i>a</i></sup> 3	8 <sup><i>a</i></sup> 2	530.2		270.20	$(1^+, 3^+)$			$\alpha$ (K)exp=0.049 <i>14</i> for doublet gives M1,E2.
260.0 <sup>a</sup> 3	8 <sup><i>a</i></sup> 2	878.26	9-	618.12	8-			
268.4 3	<5	1265.4	$10^{-}$	997.25	9-			
290.3 <i>3</i>	13 3	1770.0	(12)+	1479.8	11+	M1+E2	-0.11 3	$A_2 = -0.36 2$ , $A_4 = -0.01 3$ . $\alpha$ (K)exp=0.034 7.

# $\gamma(^{130}Cs)$ (continued)

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$E_{\gamma}^{\dagger}$	$I_{\gamma}$ ‡	E <sub>i</sub> (level)	$\mathbf{J}_i^{\pi}$	$E_f$	$\mathbf{J}_f^{\pi}$	Mult. <sup>#</sup>	$\delta^{\#}$	Comments
$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	293.9 <i>3</i>	<5	1172.1	10-	878.26	9-	M1+E2	-0.2 1	$A_2 = -0.49$ 7. $\alpha(K) \exp = 0.043$ 12.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	300.9 <i>3</i> 312.6 <i>3</i>	14 <i>3</i>	432.13 878.26	9-	131.37 565.50	2+ 8 <sup>-</sup>	M1+E2	-0.18 3	$A_2 = -0.43 \ 2, \ A_4 = 0.00 \ 2.$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	340.8 <i>3</i>	<5	1512.9	11-	1172.1	10-			$A_2 = -0.34 \ 8.$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	350 <sup>&amp;</sup>		2796.6	$(14^{+})$	2446.8	(13 <sup>+</sup> )			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	353.4 <i>3</i>	40 4	1479.8	11+	1126.5	$(10)^+$	M1+E2	+0.03 2	$A_2 = -0.19 2$ , $A_4 = -0.03 2$ . $\alpha$ (K)exp=0.025 3; K/L=6.4 11.
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	372 <b>&amp;</b>		2446.8	(13 <sup>+</sup> )	2074.8	(12 <sup>+</sup> )			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	373.8 <sup>w</sup> 3		688.35		314.52	_			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	379.23	51	997.25	9 <sup>-</sup>	618.12	8-	D+Q	-0.28 6	$A_2 = -0.54 3, A_4 = +0.01 5.$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	380.8 3	<5	1203.4	10	0/0.20	9			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	401~	52 5	2074.8	$(12^{+})$	16/3.8	(11') o-	E1		A = 0.10 I A = 0.00 2
$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	409.5 5	55 5	974.8	9	303.30	8	EI		$A_2 = -0.19 I$ , $A_4 = 0.00 2$ . $\alpha(K) \exp = 0.0045 G$
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	416.9 <i>3</i>	72	2187.0	$(13)^{+}$	1770.0	$(12)^{+}$			$u(\mathbf{x})e_{\mathbf{x}}p=0.00+5$ 0.
$\begin{array}{llllllllllllllllllllllllllllllllllll$	418.1 <sup>@</sup> 3		688.35		270.20	$(1^+, 3^+)$			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	426.5 3	<5	2613.5	$(14^{+})$	2187.0	$(13)^+$	D+Q	-0.07 5	$A_2 = -0.34 \ 3, \ A_4 = -0.08 \ 5.$
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	431.9 <i>3</i>	<5	997.25	9-	565.50	8-			
$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	453 <sup>&amp;</sup>		3249.8	$(15^{+})$	2796.6	$(14^{+})$			
$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	469 <mark>&amp;</mark>		3082.5	$(15^{+})$	2613.5	$(14^{+})$			
$\begin{array}{llllllllllllllllllllllllllllllllllll$	493 <sup>&amp;b</sup>		4040.5	$(17^{+})$	3547.5	$(16^{+})$			
$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	522.2 <i>3</i>	<5	954.3		432.13				$A_2 = +0.18 5.$
$\begin{array}{llllllllllllllllllllllllllllllllllll$	530.0 3	<5	962.1		432.13				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	547 <sup>&amp;</sup>	_	1673.8	$(11^{+})$	1126.5	$(10)^{+}$			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	554.6 3	<5	1242.9		688.35				
000.6.514.21172.110505.508Q $A_2=+0.35$ $A_4=-0.16$ 2.609.6.32796.6 $(14^+)$ 2187.0 $(13)^+$ $A_2=+0.27$ $A_4=-0.11$ 1.634.7.36.11512.911 <sup>-</sup> 878.269 <sup>-</sup> Q $A_2=+0.27$ $A_4=-0.24$ 6.643.4.39.21770.0 $(12)^+$ 1126.5 $(10)^+$ $A_2>0.$ $A_2=+0.37$ 3. $A_4=-0.10$ 4.647.37.11265.410 <sup>-</sup> 618.128 <sup>-</sup> Q $A_2=+0.37$ 3. $A_4=-0.10$ 4.6772446.8 $(13^+)$ 1770.0 $(12)^+$ $A_2=+0.27$ 3. $A_4=-0.10$ 4.6991673.8 $(11^+)$ 974.89 <sup>+</sup> 7.7.4.170.0 $(12)^+$ 4.7732446.8 $(13^+)$ 1479.811 <sup>+</sup> $A_2>0.$ 7.7.7732446.8 $(13^+)$ 1673.8 $(11^+)$ 7.7.7732446.8 $(13^+)$ 1673.8 $(11^+)$ 7.7732446.8 $(13^+)$ 1673.8 $(11^+)$ 788.6721960.7 $(12)^-$ 172.110 <sup>-</sup> 8033249.8 $(15^+)$ 2446.8 $(13^+)$ 80803.31805.6997.259 <sup>-</sup> $E_{\gamma}$ : seen in $(^{10}B,4n\gamma)$ only.820.73<5	595 <b>°</b>	14.2	2074.8	$(12^+)$	1479.8	11+	0		
$\begin{array}{llllllllllllllllllllllllllllllllllll$	600.63	14 2	11/2.1	10 (14 <sup>+</sup> )	2187.0	$(12)^+$	Q		$A_2 = +0.33 3, A_4 = -0.16 2.$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	62173	<5	2790.0	(14) 9 <sup>-</sup>	375.60	(13) 7-	( <b>0</b> )		$A_{2}=+0.277$ $A_{4}=-0.1$ <i>l</i>
$643.4 \ 3$ $9 \ 2$ $1770.0$ $(12)^+$ $1126.5$ $(10)^+$ $A_2 > 0.$ $647.3 \ 3$ $7 \ 1$ $1265.4$ $10^ 618.12 \ 8^ Q$ $A_2 = +0.37 \ 3, A_4 = -0.10 \ 4.$ $677^{\&}$ $2446.8$ $(13^+)$ $1770.0$ $(12)^+$ $A_2 = +0.37 \ 3, A_4 = -0.10 \ 4.$ $699^{\&}$ $1673.8$ $(11^+)$ $974.8 \ 9^+$ $A_2 > 0.$ $707.2 \ 3$ $6 \ 1$ $2187.0$ $(13)^+ \ 1479.8 \ 11^+$ $A_2 > 0.$ $722^{\& b}$ $2796.6$ $(14^+)$ $2074.8 \ (12^+)$ $A_2 = +0.20 \ 5, A_4 = -0.08 \ 8.$ $796.6 \ 3$ $7 \ 2$ $1960.7 \ (12)^- \ 1172.1 \ 10^ (Q)$ $A_2 = +0.20 \ 5, A_4 = -0.08 \ 8.$ $796.6 \ 3$ $7 \ 2$ $2309.6 \ 1512.9 \ 11^ B72 \ 2309.6 \ 1512.9 \ 11^ A_2 = -0.08 \ 8.$ $808.3 \ 3$ $31805.6 \ 997.25 \ 9^ E_{\gamma}$ : seen in $(^{10}B,4n\gamma)$ only. $820.7 \ 3$ $<5 \ 2086.1 \ (12)^- \ 1265.4 \ 10^- \ A_2 > 0.$ $A_2 > 0.$ $843^{\&}$ $2613.5 \ (14^+) \ 1770.0 \ (12)^+$ $A_2 > 0.$ $843^{\&}$ $2613.5 \ (15^+) \ 2187.0 \ (13)^+$ $A_2 > 0.$ $843^{\&}$ $3547.5 \ (16^+) \ 2613.5 \ (14^+)$ $490.7 \ (12)^ 93^{\&}$ $3287.6 \ 1960.7 \ (12)^ E_{\gamma}$ : seen in $(^{10}B,4n\gamma)$ only. $958^{\&}$ $4040.5 \ (17^+) \ 3082.5 \ (15^+)$ $18^+$	634.7 3	61	1512.9	11-	878.26	, 9 <sup>-</sup>	0		$A_2 = +0.217, A_4 = -0.246.$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	643.4 <i>3</i>	9 2	1770.0	$(12)^{+}$	1126.5	$(10)^+$			$A_2 > 0.$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	647.3 <i>3</i>	71	1265.4	$10^{-}$	618.12	8-	Q		$A_2 = +0.37 3$ , $A_4 = -0.10 4$ .
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	677 <sup>&amp;</sup>		2446.8	(13 <sup>+</sup> )	1770.0	$(12)^{+}$			
707.2 36 I2187.0 $(13)^+$ 1479.8 $11^+$ $A_2 > 0.$ 722 & b2796.6 $(14^+)$ 2074.8 $(12^+)$ 773 & 2446.8 $(13^+)$ 1673.8 $(11^+)$ 788.6 37 21960.7 $(12)^-$ 1172.1 $10^-$ 796.6 37 22309.61512.9 $11^-$ 803 & 3249.8 $(15^+)$ 2446.8 $(13^+)$ 808.3 31805.6997.259^-820.7 3<5	699 <mark>&amp;</mark>		1673.8	$(11^{+})$	974.8	9+			
$722^{\&0}$ $2796.6$ $(14^+)$ $2074.8$ $(12^+)$ $773^{\&}$ $2446.8$ $(13^+)$ $1673.8$ $(11^+)$ $788.63$ $7.2$ $1960.7$ $(12)^ 1172.1$ $10^ (Q)$ $A_2=+0.205, A_4=-0.088.$ $796.63$ $7.2$ $2309.6$ $1512.9$ $11^ (Q)$ $A_2=+0.205, A_4=-0.088.$ $803^{\&}$ $3249.8$ $(15^+)$ $2446.8$ $(13^+)$ $E_{\gamma}$ : seen in $(^{10}B,4n\gamma)$ only. $808.33$ $1805.6$ $997.259^ E_{\gamma}$ : seen in $(^{10}B,4n\gamma)$ only. $820.73$ $< 52086.1$ $(12)^ 1265.4$ $10^ A_2>0.$ $843^{\&}$ $2613.5$ $(14^+)$ $1770.0$ $(12)^+$ $A_2>0.$ $843^{\&}$ $3082.5$ $(15^+)$ $2187.0$ $(13)^+$ $A_2>0.$ $934^{\&}$ $3547.5$ $(16^+)$ $2613.5$ $(14^+)$ $E_{\gamma}$ : seen in $(^{10}B,4n\gamma)$ only. $936.93$ $2897.6$ $1960.7$ $(12)^ E_{\gamma}$ : seen in $(^{10}B,4n\gamma)$ only.	707.2 3	61	2187.0	$(13)^{+}$	1479.8	11+			$A_2 > 0.$
$773^{\&}$ $2446.8$ $(13^+)$ $1673.8$ $(11^+)$ $788.63$ $7.2$ $1960.7$ $(12)^ 1172.1$ $10^ Q$ ) $A_2=+0.205, A_4=-0.088.$ $796.63$ $7.2$ $2309.6$ $1512.9$ $11^ A_2=+0.205, A_4=-0.088.$ $803^{\&}$ $3249.8$ $(15^+)$ $2446.8$ $(13^+)$ $808.33$ $1805.6$ $997.259^ E_{\gamma}$ : seen in $(^{10}B, 4n\gamma)$ only. $820.73$ $<52086.1$ $(12)^ 1265.4$ $10^ 843^{\&}$ $2613.5$ $(14^+)$ $1770.0$ $(12)^+$ $895^{\&}$ $3082.5$ $(15^+)$ $2187.0$ $(13)^+$ $934^{\&}$ $3547.5$ $(16^+)$ $2613.5$ $(14^+)$ $936.93$ $2897.6$ $1960.7$ $(12)^ E_{\gamma}$ : seen in $(^{10}B, 4n\gamma)$ only. $958^{\&}$ $4040.5$ $(17^+)$ $3082.5$ $(15^+)$	722		2796.6	$(14^{+})$	2074.8	$(12^{+})$			
788.6 3       7 2       1960.7 $(12)^-$ 1172.1 $10^ (Q)$ $A_2=+0.20$ 5, $A_4=-0.08$ 8.         796.6 3       7 2       2309.6       1512.9 $11^ A_2=+0.20$ 5, $A_4=-0.08$ 8.         803 &       3249.8 $(15^+)$ 2446.8 $(13^+)$ $E_{\gamma}$ : seen in $(^{10}B,4n\gamma)$ only.         808.3 3       1805.6       997.25       9^- $E_{\gamma}$ : seen in $(^{10}B,4n\gamma)$ only.         820.7 3       <5	773 <sup>&amp;</sup>		2446.8	$(13^{+})$	1673.8	$(11^{+})$			
$796.63$ $72$ $2309.6$ $1512.9$ $11$ $803^{\&}$ $3249.8$ $(15^+)$ $2446.8$ $(13^+)$ $808.33$ $1805.6$ $997.25$ $9^ E_{\gamma}$ : seen in $(^{10}B,4n\gamma)$ only. $820.73$ $<5$ $2086.1$ $(12)^ 1265.4$ $10^ A_2 > 0.$ $843^{\&}$ $2613.5$ $(14^+)$ $1770.0$ $(12)^+$ $895^{\&}$ $3082.5$ $(15^+)$ $2187.0$ $(13)^+$ $934^{\&}$ $3547.5$ $(16^+)$ $2613.5$ $(14^+)$ $960.7$ $(12)^ E_{\gamma}$ : seen in $(^{10}B,4n\gamma)$ only. $936.93$ $2897.6$ $1960.7$ $(12)^ E_{\gamma}$ : seen in $(^{10}B,4n\gamma)$ only. $958^{\&}$ $4040.5$ $(17^+)$ $3082.5$ $(15^+)$	788.6 3	72	1960.7	$(12)^{-}$	1172.1	10-	(Q)		$A_2 = +0.205, A_4 = -0.088.$
803       3249.8 $(15^+)$ 2446.8 $(13^+)$ 808.3       3       1805.6       997.25       9 <sup>-</sup> $E_{\gamma}$ : seen in $(^{10}B,4n\gamma)$ only.         820.7       3       <5	/96.6 3	12	2309.6		1512.9	11			
$808.3.5$ $1805.6$ $997.25.9$ $E_{\gamma}$ : seen in $({}^{10}B,4n\gamma)$ only. $820.7.3$ $<5$ $2086.1$ $(12)^ 1265.4$ $10^ 843^{\&}$ $2613.5$ $(14^+)$ $1770.0$ $(12)^+$ $895^{\&}$ $3082.5$ $(15^+)$ $2187.0$ $(13)^+$ $934^{\&}$ $3547.5$ $(16^+)$ $2613.5$ $(14^+)$ $936.9.3$ $2897.6$ $1960.7$ $(12)^ E_{\gamma}$ : seen in $({}^{10}B,4n\gamma)$ only. $958^{\&}$ $4040.5$ $(17^+)$ $3082.5$ $(15^+)$	8030		3249.8	(15 <sup>+</sup> )	2446.8	(13+)			
$820.75$ $(5)$ $2080.1$ $(12)$ $1203.4$ $10$ $A2>0.$ $843^{\&}$ $2613.5$ $(14^+)$ $1770.0$ $(12)^+$ $895^{\&}$ $3082.5$ $(15^+)$ $2187.0$ $(13)^+$ $934^{\&}$ $3547.5$ $(16^+)$ $2613.5$ $(14^+)$ $936.9.3$ $2897.6$ $1960.7$ $(12)^ E_{\gamma}$ : seen in $(^{10}B, 4n\gamma)$ only. $958^{\&}$ $4040.5$ $(17^+)$ $3082.5$ $(15^+)$	808.3 3	~5	1805.0	$(12)^{-}$	997.25 1265 4	9 10 <sup>-</sup>			$E_{\gamma}$ : seen in ( <sup>20</sup> B,4n $\gamma$ ) only.
$305^{\circ}$ $2013.5^{\circ}$ $(14^{\circ})^{\circ}$ $1770.0^{\circ}$ $(12)^{\circ}$ $895^{\circ}$ $3082.5^{\circ}$ $(15^{+})^{\circ}$ $2187.0^{\circ}$ $(13)^{+}$ $934^{\circ}$ $3547.5^{\circ}$ $(16^{+})^{\circ}$ $2613.5^{\circ}$ $(14^{+})^{\circ}$ $936.9^{\circ}$ $2897.6^{\circ}$ $1960.7^{\circ}$ $(12)^{-}$ $E_{\gamma}$ : seen in $(^{10}B, 4n\gamma)$ only. $958^{\circ}$ $4040.5^{\circ}$ $(17^{+})^{\circ}$ $3082.5^{\circ}$ $(15^{+})^{\circ}$	8/3 <sup>&amp;</sup>	~5	2613.5	(12)	1203.4	$(12)^+$			11 <u>/</u> ~0.
$934^{\&}$ $3547.5$ $(16^+)$ $2613.5$ $(14^+)$ $936.9.3$ $2897.6$ $1960.7$ $(12)^ E_{\gamma}$ : seen in $(^{10}B, 4n\gamma)$ only. $958^{\&}$ $4040.5$ $(17^+)$ $3082.5$ $(15^+)$	805 <b>&amp;</b>		2013.5	(1 - 7)	2187.0	(12) $(13)^+$			
934       3347.5       (10)       2013.5       (14)         936.9 3       2897.6       1960.7       (12) <sup>-</sup> $E_{\gamma}$ : seen in ( <sup>10</sup> B,4n $\gamma$ ) only.         958 <sup>&amp;</sup> 4040 5       (17 <sup>+</sup> )       3082 5       (15 <sup>+</sup> )	021&		2547 5	(15)	2107.0	(13)			
958 $40405$ (17 <sup>+</sup> ) 3082 5 (15 <sup>+</sup> )	936 9 3		2247.2 2807.6	(10)	2013.3	$(14)^{-}$			E : seen in $({}^{10}\text{B} 4n\alpha)$ only
	058 <sup>&amp;</sup>		4040 5	$(17^{+})$	3082.5	(12)			$L_{\gamma}$ . seen in ( $D$ , $m_{\gamma}$ ) only.

Continued on next page (footnotes at end of table)

 $\gamma(^{130}Cs)$  (continued)

<sup>†</sup> From 1991Sa25, unless otherwise stated. <sup>‡</sup> From 1991Sa25, for (<sup>6</sup>Li,4n $\gamma$ ) at E=40 MeV. <sup>#</sup> From 1991Sa25. <sup>@</sup> From <sup>127</sup>I( $\alpha$ ,n $\gamma$ ). <sup>&</sup> From 2001St04. <sup>a</sup> Multiply placed with undivided intensity. <sup>b</sup> Placement of transition in the level scheme is uncertain.

<u>Level Scheme</u> Intensities: Relative  $I_{\gamma}$ 



 $I_{\gamma} < 2\% \times I_{\gamma}^{max}$   $I_{\gamma} < 10\% \times I_{\gamma}^{max}$   $I_{\gamma} > 10\% \times I_{\gamma}^{max}$   $\gamma \text{ Decay (Uncertain)}$ 



<sup>130</sup><sub>55</sub>Cs<sub>75</sub>



<sup>130</sup><sub>55</sub>Cs<sub>75</sub>



<sup>130</sup><sub>55</sub>Cs<sub>75</sub>