^{124}Sn(^{10}B,3nγ), ^{124}Sn(^{11}B,4nγ) 1997FuZY,2005Ku10

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, I. Mitropolsky, A. Rodionov	NDS 107, 2715 (2006)	17-Jul-2006

1979Ga01: ^{124}Sn(^{10}B,3nγ) E=37 MeV, ^{128}Te(^{6}Li,3nγ) E=32 MeV; measured γ, $\gamma\gamma$, $\gamma(\theta$,t), deduced levels, A_2, A_4, J^π, band assignments. In-beam and pulsed-beam measurements, Ge(Li) detectors.

1997FuZY, 2000FuZM: ^{124}Sn(^{11}B,4nγ) E=42 MeV; measured γ, $\gamma\gamma$, $\gamma(\theta$,H,t), DCO ratios, deduced spin levels, J^π, $T_{1/2}$, g-factor, band structure. 10 Compton suppressed HPGe detectors.

2005Ku10: ^{124}Sn(^{11}B,4nγ) E=57 MeV; measured γ, $\gamma\gamma$, DCO ratio deduced levels, J^π, band structure. 12 Compton-suppressed Ge detectors and 14-element multiplicity BGO filter. TRC and TAC model calculations.

Evaluators used XUNDL file corresponding to 2005Ku10 data.

^{131}Cs Levels

The level scheme is based on intensity balance and $\gamma\gamma$ coincidence data. Band assignments are as in 1997FuZY and 2005Ku10. Coupled band based on configuration=$\pi g_{7/2}\otimes\nu g_{7/2}\otimes\nu h_{11/2}$ was extended by 2005Ku10 with bandhead J=15/2$^-$ and J=17/2$^-$ levels as compared with 1997FuZY.

E(level)[†]	J^π	$T_{1/2}$	Comments
0.0[c]	5/2$^+$	9.689 d *16*	
78.38[d] *22*	7/2$^+$		
496.31[c] *19*	9/2$^+$		
616.6[d] *3*	11/2$^+$		
775.6[a] *3*	11/2$^-$	10.46 ns *14*	g=1.14 *17* $T_{1/2}$ and g-factor from 2000FuZM.
1147.58[c] *25*	13/2$^+$		
1309.4[a] *3*	15/2$^-$		
1324.5[d] *3*	15/2$^+$		
1404.7[b] *3*	13/2$^-$		
1636.4[#] *6*	15/2$^-$		
1928.1[c] *3*	17/2$^+$		
1948.6[h] *4*	15/2$^-$		
1973.0[a] *4*	19/2$^-$		
2006.6[‡k] *4*	(15/2$^-$)		
2022.1[b] *4*	17/2$^-$		
2154.9[d] *3*	19/2$^+$		
2223.0[#g] *6*	17/2$^-$[&]		
2343.8[h] *4*	19/2$^-$		
2553.8[i] *5*	17/2$^+$		
2572.7[‡k] *4*	(19/2$^-$)		
2660.1[b] *4*	21/2$^-$		
2675.6[g] *4*	21/2$^-$		
2685.7[i] *5*	19/2$^+$		
2733.8[c] *4*	21/2$^+$		
2779.7[#] *4*	21/2$^+$		
2816.3[a] *4*	23/2$^-$		
2834.3[i] *4*	21/2$^+$		
2874.5[l] *4*	23/2$^+$		
3032.9[d] *4*	23/2$^+$		
3041.8[e] *4*	25/2$^+$		

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^{124}Sn(^{10}B,3nγ), ^{124}Sn(^{11}B,4nγ) 1997FuZY,2005Ku10 (continued)

^{131}Cs Levels (continued)

E(level)[†]	J$^\pi$	E(level)[†]	J$^\pi$	E(level)[†]	J$^\pi$	E(level)[†]	J$^\pi$
3057.6[i] 4	23/2+[@]	3620.3[j] 4	27/2−	4043.5[‡k] 5	(27/2−)	4733.8[f] 5	33/2+
3063.7[h] 4	23/2−	3667.4[‡l] 5	(27/2+)	4144.1[i] 5	29/2+[@]	4856.6[e] 6	(33/2+)
3163.1[f] 4	25/2+	3722.5[i] 5	27/2+[@]	4291.3[g] 5	(29/2−)	4904.5[j] 5	33/2−
3279.0[‡k] 5	(23/2−)	3724.8[a] 4	27/2−	4347.6[‡] 6	(29/2+)	5078.5[‡i] 6	(33/2+)
3413.9[i] 4	25/2+[@]	3856.2[f] 4	(29/2+)	4386.6[j] 5	31/2−	5264.5[j] 5	(35/2−)
3424.8[g] 4	(25/2−)	3868.0[e] 5	(29/2+)	4623.4[‡l] 7	(31/2+)	5735.2[f] 6	(37/2+)
3464.7[‡j] 4	25/2−	3871.2[h] 5	(27/2−)	4641.9[a] 6	(31/2−)		
3521.2[b] 5	25/2−	3971.8[d] 8	(27/2+)	4653.0[i] 6	(31/2+)[@]		
3592.2[‡] 6	(25/2+)	4011.1[j] 4	29/2−	4717.3[‡h] 6	(31/2−)		

[†] From least-squares fit to Eγ's.
[‡] The level and de-exciting γ's is established in 1997FuZY only.
[#] The level and de-exciting γ's is established in 2005Ku10 only.
[@] Spin-parity assignments based upon the ΔJ=2 (assumed E2) nature of the 906 and the ΔJ=1 (assumed M1) nature of the 380 transitions.
[&] Spin-parity assignments based upon the ΔJ=1 (assumed M1) nature of the 544, 332 and 232 transitions and the ΔJ=2 (assumed E2) nature of the 395 transition. Negative parity is also supported from the decay of the bandhead to the negative-parity $\pi h_{11/2}$ band.
[a] Band(A): band based on configuration=$\pi h_{11/2}$, α=−1/2.
[b] Band(a): band based on configuration=$\pi h_{11/2}$, α=+1/2.
[c] Band(B): band based on configuration=$\pi d_{5/2}$.
[d] Band(C): band based on configuration=$\pi g_{7/2}$.
[e] Band(D): band based on configuration=$\pi d_{5/2}/g_{7/2}\otimes\pi(h_{11/2})^2$.
[f] Band(E): band based on configuration=$\pi d_{5/2}/g_{7/2}\otimes\pi(h_{11/2})^2$.
[g] Band(F): Band based on configuration=$\pi g_{7/2}\otimes\nu g_{7/2}\otimes\nu h_{11/2}$, α=+1/2. The 2222.9, J=17/2− level was stated by 2005Ku10.
[h] Band(f): band based on configuration=$\pi g_{7/2}\otimes\nu g_{7/2}\otimes\nu h_{11/2}$, α=−1/2.
[i] Band(G): Band based on configuration=$\pi g_{7/2}/d_{5/2}\otimes(\nu h_{11/2})^2$. Magnetic-dipole rotational band #1.
[j] Band(H): Band based on configuration=$\pi h_{11/2}\otimes(\nu h_{11/2})^2$. Magnetic-dipole rotational band #2.
[k] Band(I): Possible rotational level sequence on the 15/2− state. The level sequence was reported by 1997FuZY and its rotational character is supported by calculations (by evaluators) with use of Variable Moment of Inertia model (the mean-squared deviation of calculated level energy values from the experimental ones Δ=9 keV).
[l] Band(J): Possible rotational level sequence on the 23/2+ state. The level sequence was reported by 1997FuZY.

γ(^{131}Cs)

DCO ratios from 2005Ku10; A_2, A_4 values from 1979Ga01.

E$_\gamma$[†]	I$_\gamma$[‡]	E$_i$(level)	J$^\pi_i$	E$_f$	J$^\pi_f$	Mult.[@]	Comments
78.3 3	10.2 10	78.38	7/2+	0.0	5/2+	M1+E2	Mult.: from ^{131}Ba ε decay.
95.3 7	1.5 3	2874.5	23/2+	2779.7	21/2+	(M1)	
99.3 7	0.5 1	3620.3	27/2−	3521.2	25/2−	(M1)	
[x]115							Coincident with 537, reported by 1979Ga01 only.
120.9 7	0.5 1	2343.8	19/2−	2223.0	17/2−	(M1)	
132.0 4	1.9 4	2685.7	19/2+	2553.8	17/2+	M1	Mult.: DCO=0.71 5.
140.50 21	18.2 18	2874.5	23/2+	2733.8	21/2+	M1	Mult.: DCO=0.69 7; A_2=−0.30 5, A_4=0.05 7.

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^{124}Sn(^{10}B,3nγ), ^{124}Sn(^{11}B,4nγ) 1997FuZY,2005Ku10 (continued)

γ(^{131}Cs) (continued)

E_γ [†]	I_γ [‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	Comments
148.7 4	2.0 4	2834.3	21/2+	2685.7	19/2+	M1	Mult.: DCO=0.64 15.
156.0[f] 7	1.9[f] 4	2816.3	23/2−	2660.1	21/2−	M1	Mult.: DCO=0.38 10.
156.0[f] 7	1.1[f] 2	3620.3	27/2−	3464.7	25/2−	M1	Mult.: DCO=0.38 12.
159.0[b] 5		775.6	11/2−	616.6	11/2+		
167.07 26	14.3 14	3041.8	25/2+	2874.5	23/2+	M1	Mult.: DCO=0.54 5.
189.0[b] 5		3856.2	(29/2+)	3667.4	(27/2+)		
200.0[b] 5		3868.0	(29/2+)	3667.4	(27/2+)		
203.4 4	3.4 7	3724.8	27/2−	3521.2	25/2−	M1	Mult.: DCO=0.64 10.
223.71 26	7.4 7	3057.6	23/2+	2834.3	21/2+	M1	Mult.: DCO=0.59 7.
226.6 7	0.5 1	2154.9	19/2+	1928.1	17/2+	(M1)	
232.3 7	2.8 6	1636.4	15/2−	1404.7	13/2−	M1	Mult.: DCO=0.65 9.
261.3 7	1.3 3	3724.8	27/2−	3464.7	25/2−	(M1)	
274.5 7	1.8 4	2223.0	17/2−	1948.6	15/2−	M1	Mult.: DCO=0.58 11.
278.3 7	2.2 4	3057.6	23/2+	2779.7	21/2+	(M1)	
279.25 23	67 3	775.6	11/2−	496.31	9/2+	E1	Mult.: DCO=0.61 4; A_2=−0.22 2, A_4=−0.04 3.
286.15 26	7.6 8	4011.1	29/2−	3724.8	27/2−	M1	Mult.: DCO=0.57 7.
288.78 26	9.6 10	3163.1	25/2+	2874.5	23/2+	M1	Mult.: DCO=0.49 11.
299.0[b] 5		3032.9	23/2+	2733.8	21/2+		
308.85 26	6.7 7	3722.5	27/2+	3413.9	25/2+	M1	Mult.: DCO=0.53 7.
319.0[b] 5		4043.5	(27/2−)	3724.8	27/2−		
322.0[b] 5		2343.8	19/2−	2022.1	17/2−		
332.22 26	3.6 7	2675.6	21/2−	2343.8	19/2−	M1	Mult.: DCO=0.64 10.
347.0 4	1.6 3	3163.1	25/2+	2816.3	23/2−	(E1)	
356.71 26	7.6 8	3413.9	25/2+	3057.6	23/2+	M1	Mult.: DCO=0.50 7.
359.9 7	2.7 5	5264.5	(35/2−)	4904.5	33/2−	(M1)	
361.1 4	2.3 5	3424.8	(25/2−)	3063.7	23/2−	(M1)	
370.9[c] 4	1.2 2	2343.8	19/2−	1973.0	19/2−	(M1)	
375.5 3	14.2 14	4386.6	31/2−	4011.1	29/2−	M1	Mult.: DCO=0.42 5.
380.8 7	1.5 3	3413.9	25/2+	3032.9	23/2+	M1	Mult.: DCO=0.39 19.
388.2 4	2.7 5	3063.7	23/2−	2675.6	21/2−	(M1)	
390.93 26	15.8 8	4011.1	29/2−	3620.3	27/2−	M1	Mult.: DCO=0.39 8.
395.22[d] 26	5.0 5	2343.8	19/2−	1948.6	15/2−	E2	Mult.: DCO=1.04 12.
401.1 7	0.5 1	3464.7	25/2−	3063.7	23/2−	(M1)	
416.0[b] 5		2343.8	19/2−	1928.1	17/2+		
417.8[d] 3	5.1 5	496.31	9/2+	78.38	7/2+	(M1)	
420.0 47	0.5 1	4291.3	(29/2−)	3871.2	(27/2−)	(M1)	
421.71 26	8.1 8	4144.1	29/2+	3722.5	27/2+	M1	Mult.: DCO=0.58 7.
426.0[eb] 5		4717.3	(31/2−)	4291.3	(29/2−)		
426.0[eb] 5		5078.5	(33/2+)	4653.0	(31/2+)	(M1)	
x427.4[#]							
x430.3[a#]							
446.2 4	1.2 2	3871.2	(27/2−)	3424.8	(25/2−)	(M1)	
x450.1[a#]							
463.0[b] 5		3279.0	(23/2−)	2816.3	23/2−		
x472.6[a#]							
480.0[b] 5		4347.6	(29/2+)	3868.0	(29/2+)		
x482.5[a#]							
x485.4[#]							
496.35 21	100 5	496.31	9/2+	0.0	5/2+	E2	Mult.: DCO=1.05 7; A_2=+0.23 2, A_4=−0.10 3$.
509.2 4	2.0 4	4653.0	(31/2+)	4144.1	29/2+	(M1)	

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^{124}Sn(^{10}B,3nγ), ^{124}Sn(^{11}B,4nγ) 1997FuZY,2005Ku10 (continued)

γ(^{131}Cs) (continued)

E_γ [†]	I_γ [‡]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [@]	δ [@]	Comments
[x]516.3[#]								
517.8 *3*	3.4 *7*	4904.5	33/2⁻	4386.6	31/2⁻	M1	[&]	Mult.: DCO=0.53 *9*.
[x]519.8[a#]								
530.9 *4*	2.6 *5*	1147.58	13/2⁺	616.6	11/2⁺	(M1)		
533.70[d] *21*	56 *3*	1309.4	15/2⁻	775.6	11/2⁻	E2		Mult.: DCO=0.88 *8*; A_2=+0.17 *6*, A_4=−0.12 *7*.
538.3[d] *3*	39.4 *20*	616.6	11/2⁺	78.38	7/2⁺	E2		E_γ: weighted average of 534.4 *3* (2005Ku10) and 538.0 *5* (1997FuZY). Other: 536.7 *5* (1979Ga01). Mult.: DCO=1.02 *8*; A_2=+0.20 *5*, A_4=−0.03 *6*$.
543.95 *21*	7.3 *7*	1948.6	15/2⁻	1404.7	13/2⁻	M1+E2	≈−0.2	Mult.: DCO=0.34 *9*; A_2=−0.44 *4*, A_4=−0.11 *8*. δ: from (1979Ga01), mult.=M1 has been set by 2005Ku01.
550.0[b] *5*		3592.2	(25/2⁺)	3041.8	25/2⁺			
[x]559.6[a#]								
566.0[b] *5*		2572.7	(19/2⁻)	2006.6	(15/2⁻)			
578.93 *26*	3.9 *8*	2733.8	21/2⁺	2154.9	19/2⁺	M1		Mult.: DCO=0.40 *9*.
579.0[b] *5*		3413.9	25/2⁺	2834.3	21/2⁺	E2		
600.0[b] *5*		2572.7	(19/2⁻)	1973.0	19/2⁻			
602.0[b] *5*		2006.6	(15/2⁻)	1404.7	13/2⁻			
603.8 *5*	5.5 *6*	1928.1	17/2⁺	1324.5	15/2⁺	M1		Mult.: DCO=0.40 *8*.
617.1 *4*	2.3 *5*	2022.1	17/2⁻	1404.7	13/2⁻	(E2)		
625.0[b] *5*		3667.4	(27/2⁺)	3041.8	25/2⁺			
626.1[c] *7*	2.2 *4*	2553.8	17/2⁺	1928.1	17/2⁺			
629.25 *21*	11.1 *11*	1404.7	13/2⁻	775.6	11/2⁻	M1+E2	≈−0.3	Mult.: DCO=0.40 *6*; A_2=−0.56 *3*, A_4=0.02 *4*. δ: from (1979Ga01), mult.=M1 has been set by 2005Ku01.
638.07[d] *2*	1.6 *3*	2660.1	21/2⁻	2022.1	17/2⁻	(E2)		
639.5[c] *7*	1.9 *4*	1948.6	15/2⁻	1309.4	15/2⁻	(M1)		
648.44 *26*	4.3 *9*	3464.7	25/2⁻	2816.3	23/2⁻	M1		Mult.: DCO=0.58 *9*.
651.25[d] *21*	35.3 *18*	1147.58	13/2⁺	496.31	9/2⁺	E2		Mult.: DCO=0.88 *7*; A_2=+0.30 *3*, A_4=−0.15 *3*.
653.0[b] *5*		2675.6	21/2⁻	2022.1	17/2⁻			
663.40[d] *21*	42.6 *21*	1973.0	19/2⁻	1309.4	15/2⁻	E2		Mult.: DCO=1.10 *8*; A_2=+0.32 *5*, A_4=−0.16 *6*.
664.3[d] *4*	2.2 *4*	3722.5	27/2⁺	3057.6	23/2⁺	E2		
680.0[b] *5*		2834.3	21/2⁺	2154.9	19/2⁺			
686.7 *4*	6.5 *7*	2660.1	21/2⁻	1973.0	19/2⁻	M1		Mult.: DCO=0.38 *9*.
693.5[d] *3*	4.4 *9*	3856.2	(29/2⁺)	3163.1	25/2⁺	(E2)		Mult.: DCO=0.84 *15*.
697.0[b] *5*		2006.6	(15/2⁻)	1309.4	15/2⁻			
702.0 *4*	1.5 *3*	2675.6	21/2⁻	1973.0	19/2⁻	(M1)		
704.8[f] *7*	1.6[f] *3*	3521.2	25/2⁻	2816.3	23/2⁻	(M1)		E_γ: from 2005Ku10; Eγ=705 in 1997FuZY.
704.8[f] *7*	1.9[f] *4*	3868.0	(29/2⁺)	3163.1	25/2⁺	(E2)		E_γ: from 2005Ku10; Eγ=704 in 1997FuZY.
706.0[b] *5*		3279.0	(23/2⁻)	2572.7	(19/2⁻)			
707.90 *21*	30.4 *15*	1324.5	15/2⁺	616.6	11/2⁺	E2		Mult.: DCO=0.87 *8*; A_2=+0.31 *7*, A_4=−0.11 *9*.
708.0 *7*	1.7 *3*	2343.8	19/2⁻	1636.4	15/2⁻	(E2)		
713.07[d] *26*	7.4 *7*	2022.1	17/2⁻	1309.4	15/2⁻	M1		Mult.: DCO=0.44 *8*.
719.59 *26*	3.5 *7*	2874.5	23/2⁺	2154.9	19/2⁺	E2		Mult.: DCO=1.03 *18*.
720.1[d] *4*	1.9 *4*	3063.7	23/2⁻	2343.8	19/2⁻	(E2)		
730.1 *4*	1.6 *3*	4144.1	29/2⁺	3413.9	25/2⁺	(E2)		
749.15[d] *26*	3.5 *7*	3424.8	(25/2⁻)	2675.6	21/2⁻	(E2)		

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$^{124}Sn(^{10}B,3n\gamma)$, $^{124}Sn(^{11}B,4n\gamma)$ 1997FuZY,2005Ku10 (continued)

$\gamma(^{131}Cs)$ (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[@]	Comments
755.0[b] *5*		4347.6	(29/2+)	3592.2	(25/2+)		
766.29[d] *26*	4.0 *8*	4386.6	31/2−	3620.3	27/2−	E2	Mult.: DCO=0.88 *16*.
780.45[d] *21*	36.9 *18*	1928.1	17/2+	1147.58	13/2+	E2	Mult.: DCO=1.13 *11*; A_2=+0.24 *5*, A_4=−0.03 *7*.
793.0[b] *5*		3667.4	(27/2+)	2874.5	23/2+		
804.07[d] *26*	19.0 *10*	3620.3	27/2−	2816.3	23/2−	E2	Mult.: DCO=1.23 *12*.
804.71[d] *26*	0.7 *1*	3464.7	25/2−	2660.1	21/2−		
805.59[d] *26*	27.7 *14*	2733.8	21/2+	1928.1	17/2+	E2	Mult.: DCO=0.97 *8*.
807.7 *4*	4.5 *9*	3871.2	(27/2−)	3063.7	23/2−	(E2)	
814.4 *4*	3.0 *6*	3856.2	(29/2+)	3041.8	25/2+	(E2)	
826.2 *3*	6.5 *7*	3868.0	(29/2+)	3041.8	25/2+	(E2)	
830.37[d] *26*	20.9 *11*	2154.9	19/2+	1324.5	15/2+	E2	Mult.: DCO=0.89 *12*.
843.29[d] *26*	31.9 *16*	2816.3	23/2−	1973.0	19/2−	E2	Mult.: DCO=0.84 *12*.
846.0[d] *5*		4717.3	(31/2−)	3871.2	(27/2−)		
851.8 *3*	6.5 *7*	2779.7	21/2+	1928.1	17/2+	(E2)	
861.0[d] *5*	5.4 *5*	3521.2	25/2−	2660.1	21/2−	(E2)	
865.63 *25*	2.0 *4*	4733.8	33/2+	3868.0	(29/2+)	(E2)	
866.5[d] *3*	2.3 *5*	4291.3	(29/2−)	3424.8	(25/2−)	(E2)	
877.85[d] *26*	4.4 *9*	4733.8	33/2+	3856.2	(29/2+)	E2	Mult.: DCO=0.83 *17*.
877.9[d] *3*	3.9 *8*	5264.5	(35/2−)	4386.6	31/2−	(E2)	
878.07 *26*	7.5 *8*	3032.9	23/2+	2154.9	19/2+	E2	Mult.: DCO=0.86 *17*.
893.8[d] *7*	0.70 *14*	4904.5	33/2−	4011.1	29/2−	(E2)	
902.2 *4*	3.0 *6*	3057.6	23/2+	2154.9	19/2+	(E2)	
906.15 *26*	6.5 *7*	2834.3	21/2+	1928.1	17/2+	E2	Mult.: DCO=1.03 *15*; =1.03 (1997FuZY).
908.37[d] *26*	6.6 *7*	3724.8	27/2−	2816.3	23/2−	E2	Mult.: DCO=0.82 *15*.
917.1[d] *4*	1.3 *3*	4641.9	(31/2−)	3724.8	27/2−	(E2)	
930.4[d] *6*	3.0 *6*	4653.0	(31/2+)	3722.5	27/2+	(E2)	
934.0[db] *5*		5078.5	(33/2+)	4144.1	29/2+	E2	
[x]935.2[#]							
938.8[d] *7*	1.7 *3*	3971.8	(27/2+)	3032.9	23/2+	(E2)	
956.0[b] *5*		4623.4	(31/2+)	3667.4	(27/2+)		
988.6 *3*	3.8 *8*	4856.6	(33/2+)	3868.0	(29/2+)	(E2)	E_γ: from 2005Ku10; Eγ=985 in 1997FuZY.
1001.4[d] *4*	4.7 *9*	5735.2	(37/2+)	4733.8	33/2+	(E2)	
[x]1014[#]							
1227.0[b] *5*		4043.5	(27/2−)	2816.3	23/2−		
1229.4 *6*	1.2 *2*	2553.8	17/2+	1324.5	15/2+	(M1)	
1231.0[b] *5*		2006.6	(15/2−)	775.6	11/2−		
1263.0[b] *5*		2572.7	(19/2−)	1309.4	15/2−		
1306.0[b] *5*		3279.0	(23/2−)	1973.0	19/2−		

[†] Weighted average from 1979Ga01, 1997FuZY, 2005Ku10 when values are available. ΔEγ=0.5 keV for 1979Ga01, 1997FuZY data (assumed by evaluators) and for 2005Ku10 ΔE(γ)=0.7 keV for Iγ<3, ΔE(γ)=0.3 keV for all other (based on footnote in table 1) when not stated other.

[‡] From 2005Ku10, ΔIγ assigned as follows: 5% for Iγ>20; 10% for Iγ=5-20 and 20% for Iγ<5, based on a general statement that the uncertainty range is 5-20%.

[#] From γγ coin spectra in figure 2 of 2005Ku10; not assigned in level scheme, also not listed in author′s table 1.

[@] From γ(θ), DCO ratio. E2 is assumed for quadrupole transitions and M1 is assumed for dipole transitions within a band; when

Continued on next page (footnotes at end of table)

^{124}Sn(^{10}B,3nγ), ^{124}Sn(^{11}B,4nγ) 1997FuZY,2005Ku10 (continued)

γ(^{131}Cs) (continued)

DCO ratio is not measured, transition multipolarity is assumed on the basis of band structure and is included in parentheses.

[&] E2 mixture is small (in 2005Ku10, δ=0 for ΔJ=1 transitions in coupled bands has been set and mult.=M1 assumed).

[a] Corresponding transition lies above (33/2$^+$) level of $\pi g_{7/2}/d_{5/2}\otimes(\nu h_{11/2})^2$ band (2005Ku10).

[b] Reported by 1997FuZU only.

[c] Transition connects levels with ΔJ=0.

[d] Stretched E2 transition.

[e] Multiply placed.

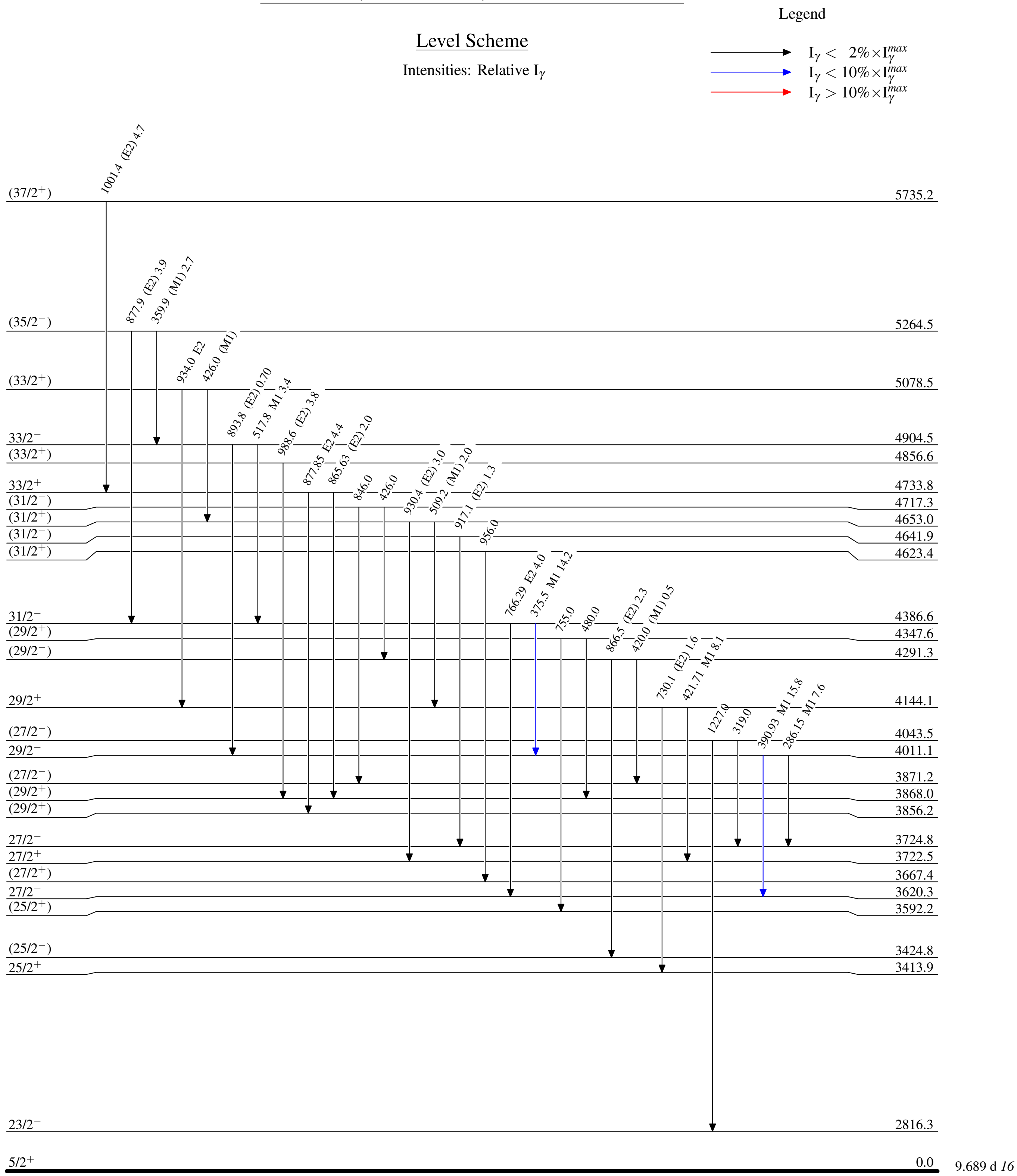
[f] Multiply placed with intensity suitably divided.

[x] γ ray not placed in level scheme.

$^{124}Sn(^{10}B,3n\gamma)$, $^{124}Sn(^{11}B,4n\gamma)$ 1997FuZY,2005Ku10

Level Scheme

Intensities: Relative I_γ



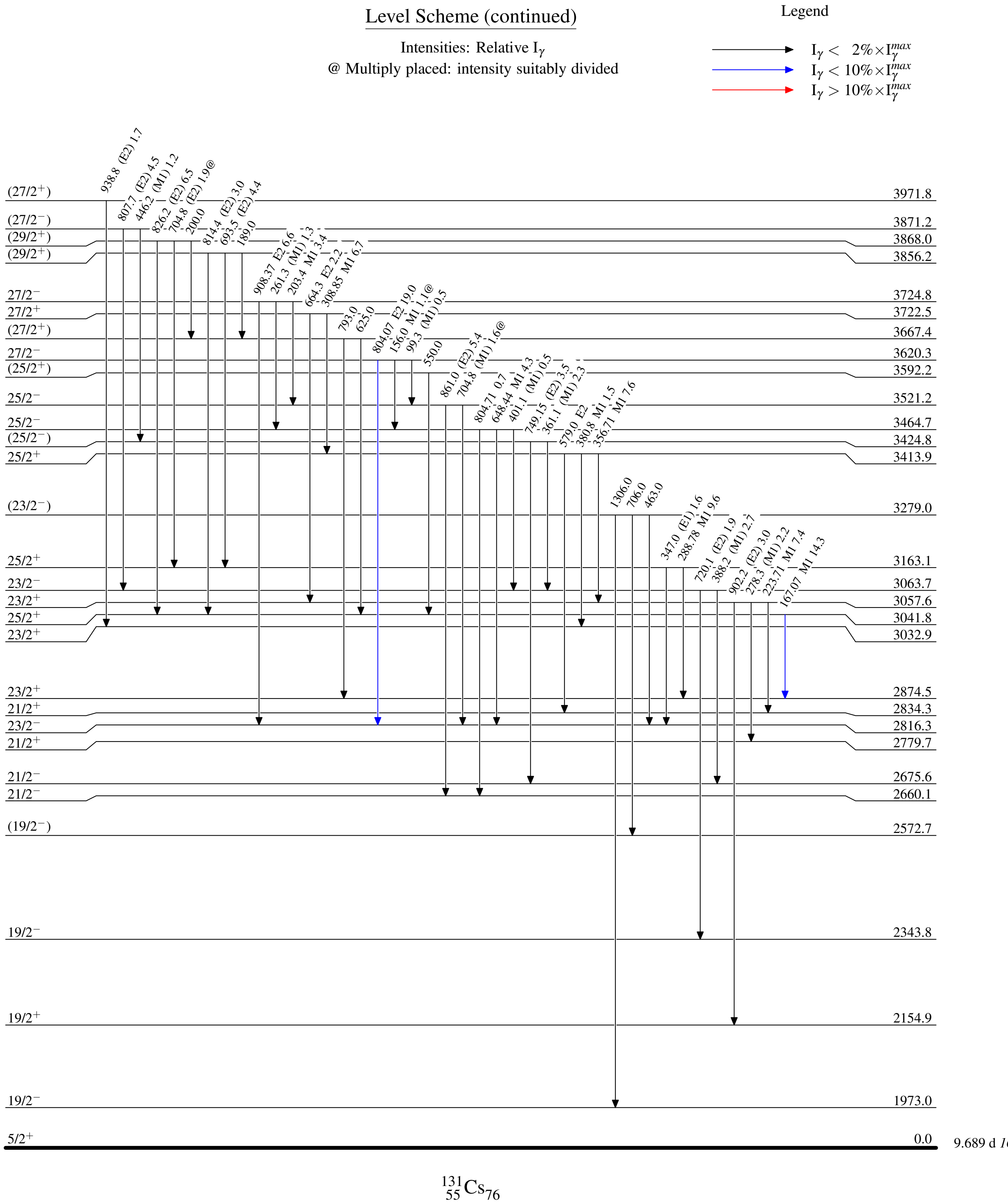
$^{131}_{55}Cs_{76}$

^{124}Sn(^{10}B,3nγ), ^{124}Sn(^{11}B,4nγ) 1997FuZY,2005Ku10

Level Scheme (continued)

Intensities: Relative I_γ

@ Multiply placed: intensity suitably divided



^{124}Sn(^{10}B,3nγ), ^{124}Sn(^{11}B,4nγ) 1997FuZY,2005Ku10

Level Scheme (continued)

Intensities: Relative I_γ

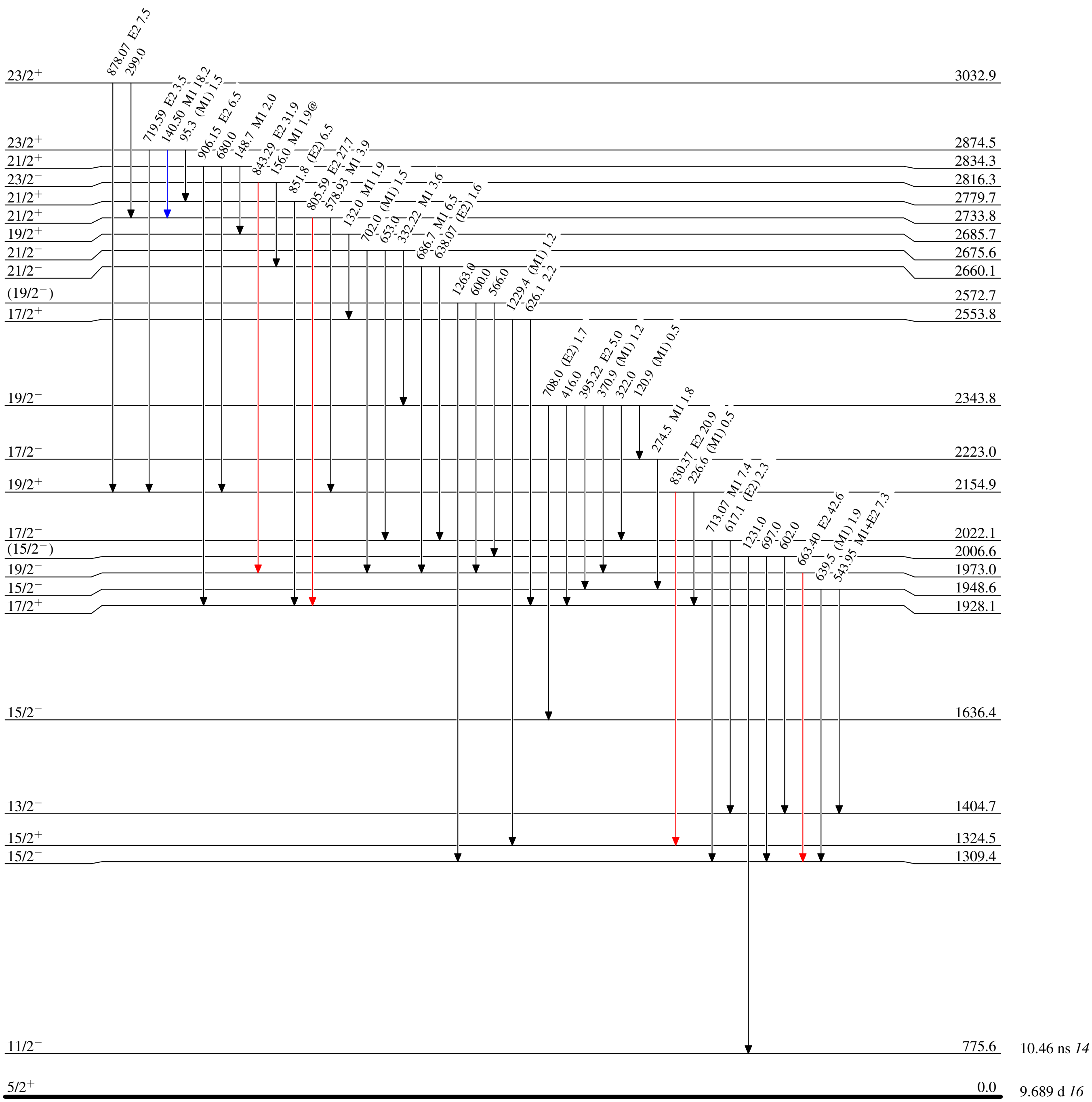
@ Multiply placed: intensity suitably divided

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



$^{131}_{55}Cs_{76}$

^{124}Sn(^{10}B,3nγ), ^{124}Sn(^{11}B,4nγ) 1997FuZY,2005Ku10

Level Scheme (continued)

Intensities: Relative I_γ

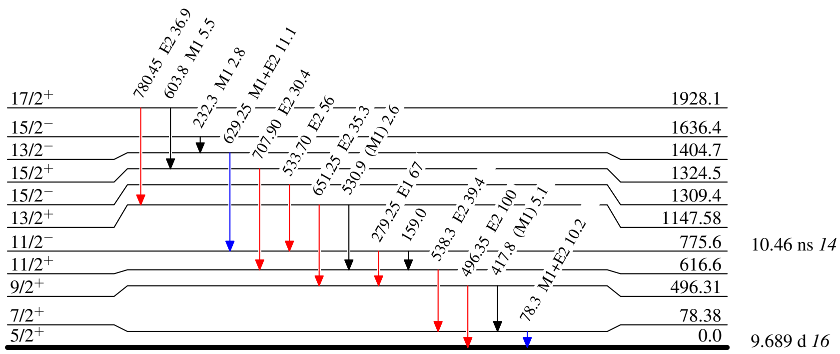
@ Multiply placed: intensity suitably divided

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

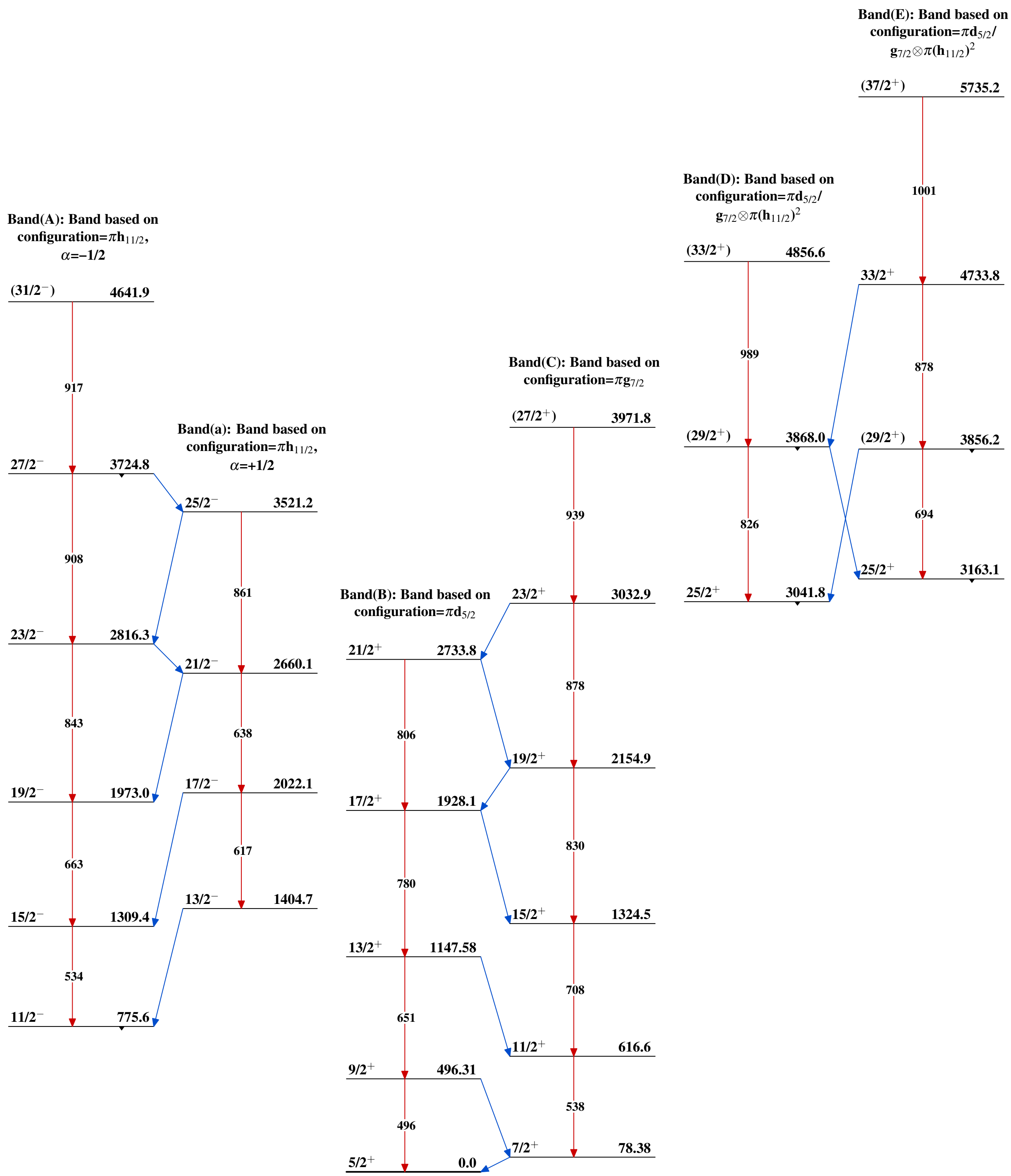
$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



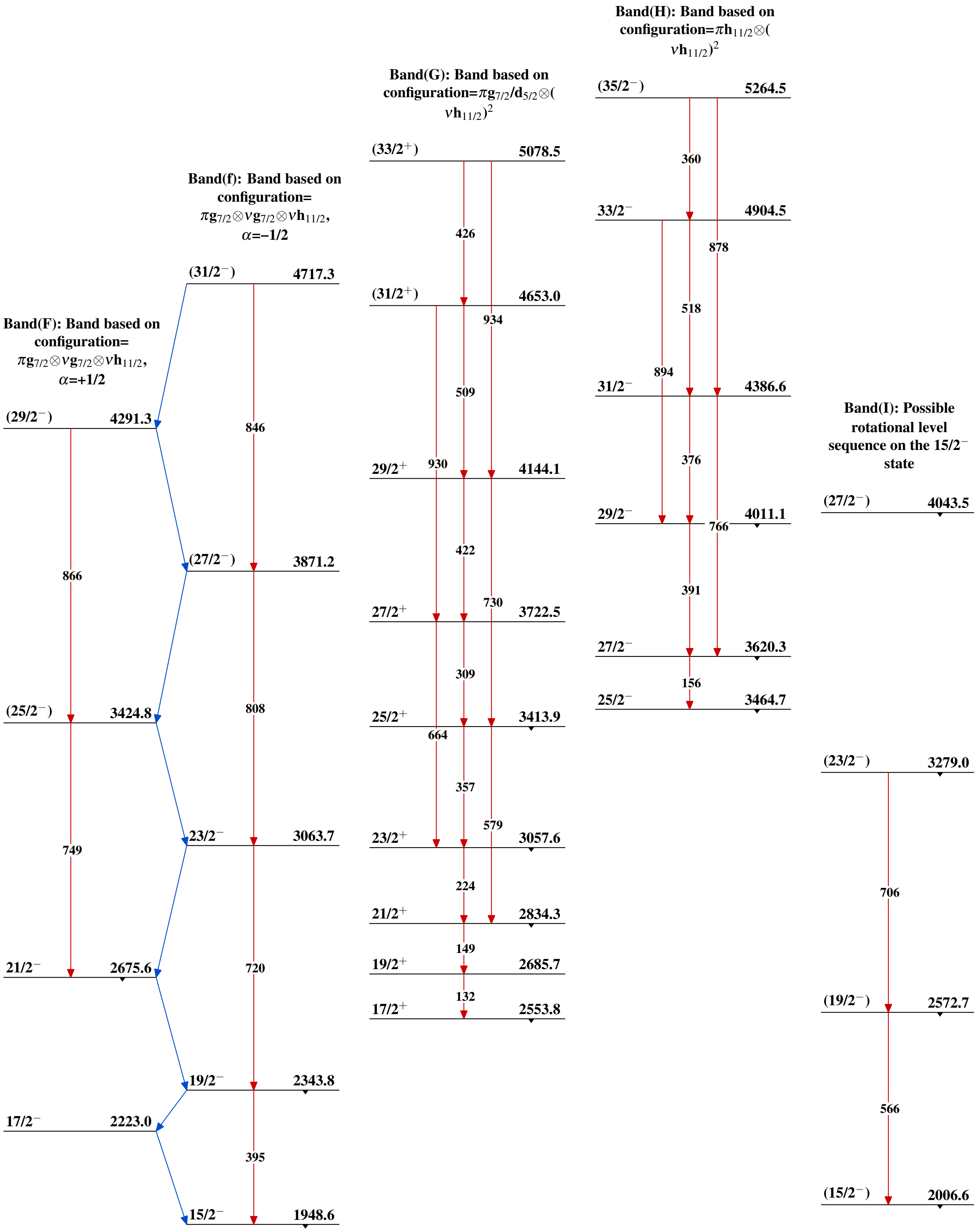
$^{131}_{55}Cs_{76}$

$^{124}Sn(^{10}B,3n\gamma)$, $^{124}Sn(^{11}B,4n\gamma)$ 1997FuZY,2005Ku10



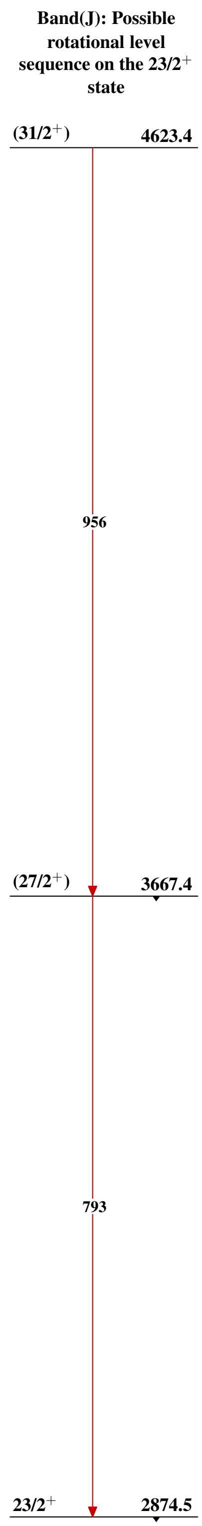
$^{131}_{55}Cs_{76}$

$^{124}Sn(^{10}B,3n\gamma)$, $^{124}Sn(^{11}B,4n\gamma)$ 1997FuZY,2005Ku10 (continued)



$^{131}_{55}Cs_{76}$

$^{124}Sn(^{10}B,3n\gamma)$, $^{124}Sn(^{11}B,4n\gamma)$ 1997FuZY,2005Ku10 (continued)



$^{131}_{55}Cs_{76}$