^{171}Yb(n,γ) E=thermal 1985Ge02,1975Gr32,1988Su01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 75,199 (1995)	31-May-1995

J^π(^{171}Yb g.s.)=1/2$^-$.
Enriched targets (88% to 98%) used in all studies.
1975Gr32 (also 1970Gr31): enriched (96%) target. Measured G.
1985Ge02: enriched (88%) target. Measured γ, $\gamma\gamma$ (for a few intense transitions), ce. Curved-crystal and pair spectrometers used for γ rays and magnetic spectrometer for ce.
1988Su01: enriched (88%) target. Measured ce data mainly for E0 transitions.
Other measurements:
1986An14: enriched (88%) target. Measured $T_{1/2}$(levels) by $\gamma\gamma$ coincidence and centroid-shift method.
1978La14 (also 1977LaZD): enriched target. Measured γ with bent-crystal spectrometer and ce with magnetic spectrometer. E0 transitions reported.
1973Wi19: enriched (98.6%) target. Measured secondary γ's with bent-crystal spectrometer.
1971Al14: enriched (96%) target. Measured G. Thirty-six primary and three secondary γ rays. The intensities of primary γ rays are not in good agreement with those from 1985Ge02 and 1975Gr32.
1969Na08: 4 primary γ rays reported.

^{172}Yb Levels

Population of levels at 1351, 1845, 2030 and 2404 suggested by 1975Gr32 has been excluded since these are not confirmed in the study by 1985Ge02. The γ rays from these levels are either not seen in other studies or placed elsewhere in the level scheme.

E(level)[†]	J^π[‡]	$T_{1/2}$	E(level)[†]	J^π[‡]	$T_{1/2}$
0.0[#]	0$^+$		1700.700[d] *11*	3$^+$	
78.742[#] *2*	2$^+$		1710.510[j] *18*	3$^{(-)}$	
260.269[#] *4*	4$^+$		1757.450[e] *7*	(2)$^-$	
539.987[#] *7*	6$^+$		1794.11[f] *4*	0$^+$	<0.15[l] ns
1042.939[@] *10*	0$^+$		1821.634[e] *9*	3$^-$	
1117.899[@] *6*	2$^+$		1849.32[f] *4*	2$^+$	
1154.987[&] *6*	1$^-$		1894.60[g] *3*	0$^+$	<0.15[l] ns
1172.410[a] *8*	3$^+$		1920? *1*		
1198.523[&] *7*	2$^-$		1956.41[g] *3*	2$^+$	
1221.758[&] *8*	3$^-$		2010.01[h] *4*	1$^+$	
1263.059[a] *9*	4$^+$		2047.06[h] *3*	(2)$^+$	
1286.583[@] *18*	4$^+$		2076.210 *13*	(1)$^-$	
1330.739[&] *14*	4$^-$		2102.92 *3*	1$^-$	
1351.6?[&] *4*	(5$^-$)		2176.25 *5*	(1)$^-$	
1375.849[a] *10*	5$^+$		2194.400[i] *15*	(1$^+$)	
1405.036[bm] *6*	0$^+$	0.42[l] ns *6*	2195.06 *5*	(1,2$^+$)	
1465.983[c] *7*	2$^+$		2214.07 *8*	(1$^-$)	
1476.862[b] *19*	2$^+$		2228.68[i] *4*	2$^+$	
1549.27[c] *3*	3$^+$		2312.94 *8*	(2$^+$)	
1599.905[j] *12*	1$^-$		2317.0? *2*	1,2$^{(+)}$	
1608.529[d] *9*	2$^+$		2327.64 *7*	(2$^+$)	
1632.24?[b] *25*	(4)$^+$		2341.90 *3*	(0$^+$,1$^+$,2$^+$)	
1640.601[k] *10*	4$^-$		2375.27 *3*	(1$^+$,2)	
1662.839[a] *11*	3$^+$		2387.777 *15*	(1$^+$,2$^+$)	

Continued on next page (footnotes at end of table)

^{171}Yb(n,γ) E=thermal 1985Ge02,1975Gr32,1988Su01 (continued)

^{172}Yb Levels (continued)

E(level)†	J^π‡	E(level)†	E(level)†	E(level)†	J^π‡
2464.10 8	(2^+)	2844.3 5	3346.6 5	3766.5 7	
2480.11 2	$(1^+,2^+)$	2861.8 9	3360.7 7	3786.3 7	
2503.9 3		2872.2 5	3366.7 7	3799.0 6	
2524.2 3		2887.3 8	3381.5 5	3819.5 9	
2534.9 3		2916.4 8	3387.6 5	3856.3 6	
2539.2 4		2943.0 6	3407.9 9	3876.4 6	
2547.0 6		2959.8 6	3426.4 7	3908.3 7	
2559.5 3		2985.4 8	3465.1 6	3917.3 6	
2575.7 3		2993.8 9	3490.3 12	3927.6 6	
2582.8 4		3001.5 9	3494.7 6	3955.7 7	
2588.5 4		3020.2 6	3506.0 6	3963.0 7	
2598.9 5		3036.8 6	3543.4 6	3984.9 7	
2607.5 3		3074.8 6	3557.3 5	3990.7 7	
2627.9 3		3098.7 6	3570.0 6	4008.8 7	
2668.1 3		3120.1 6	3586.9 7	4020.8 7	
2676.0 15		3130.6 6	3627.5 9	4043.4 7	
2700.3 3		3141.3 6	3634.3 7	4056.2 11	
2732.8 3		3175.6 7	3640.4 6	4062.1 6	
2747.3 3		3205.5 7	3657.0 6	4078.2 7	
2766.3 4		3254.4 7	3669.7 6	4162.8 6	
2776.8 6		3260.2 5	3680.9 6	4251.5 6	
2781.4 14		3283.1 11	3714.2 6	4351.5 7	
2787.6 4		3289.2 8	3719.2 6	8019.33[n] 5	$0^-,1^-$
2808.0 4		3300.2 6	3740.9 5		
2818.5 7		3308.5 7	3747.6 5		
2834.6 5		3334.6 9	3754.7 10		

† From least-squares fit to Eγ's.
‡ From Adopted Levels.
\# Band(A): $K^\pi=0^+$ g.s. band.
@ Band(B): $K^\pi=0^+$ band.
& Band(C): $K^\pi=1^-$ octupole band.
a Band(D): $K^\pi=3^+$ band.
b Band(E): $K^\pi=0^+$ band.
c Band(F): $K^\pi=2^+$ band.
d Band(G): $K^\pi=2^+$ band.
e Band(H): $K^\pi=2^-$ octupole band.
f Band(I): $K^\pi=0^+$ band.
g Band(J): $K^\pi=0^+$ band.
h Band(K): $K^\pi=1^+$ band.
i Band(L): $K^\pi=1^+$ band.
j Band(M): $K^\pi=0^-$ band.
k Band(N): $K^\pi=4^-$ band.
l From 1986An14.
m This level interpreted as a mixed symmetry state or as a 2-quasi particle state with 7/2[633] and 1/2[521] neutron orbitals (1986An14).
n Neutron capture state.

γ(^{172}Yb)

Iγ normalization: per 100 n-captures for secondary transitions (1985Ge02). Iγ normalization=0.054 (1975Gr32) is in disagreement. For primary transitions Iγ normalization=0.00107 (1985Ge02), 0.00287 (1975Gr32). A systematic uncertainty of 50% is suggested by 1985Ge02. Large disagreement between the two values is not understood.

α(K)exp and α(L)exp values are from 1985Ge02. See also 1978La14 and 1988Su01 for selected transitions.

E_γ[†]	I_γ[‡g]	E_i(level)	J^π_i	E_f	J^π_f	Comments
[x]64.345[@] *2*	13[@] *3*					
78.743 *2*	128 *12*	78.742	2$^+$	0.0	0$^+$	
90.645[h] *4*	1.9[h] *3*	1263.059	4$^+$	1172.410	3$^+$	Additional information 6.
90.645[h] *4*	1.9[h] *3*	2047.06	(2)$^+$	1956.41	2$^+$	
[x]95.267 *4*	0.36 *6*					
[x]104.6[&] *4*	0.26[&] *10*					
112.761[@] *11*	0.144[@] *16*	1375.849	5$^+$	1263.059	4$^+$	
132.227[@] *13*	0.08[@] *3*	1330.739	4$^-$	1198.523	2$^-$	
142.539 *6*	0.27 *2*	1608.529	2$^+$	1465.983	2$^+$	
[x]163.013[@] *10*	0.24[@] *3*					
181.531 *4*	101 *5*	260.269	4$^+$	78.742	2$^+$	
[x]191.202[@] *5*	0.30[@] *3*					
193.354 *6*	0.48 *5*	2387.777	(1$^+$,2$^+$)	2194.400	(1$^+$)	
203.441 *5*	0.74 *10*	1375.849	5$^+$	1172.410	3$^+$	
208.315[hi] *10*	0.47[h] *6*	1757.450	(2)$^-$	1549.27	3$^+$	Additional information 11.
208.315[h] *10*	0.47[h] *6*	2102.92	1$^-$	1894.60	0$^+$	
[x]228.1[#f] *15*						
[x]247.734 *20*	1.08 *8*					
250.035[h] *7*	0.71[h] *5*	1405.036	0$^+$	1154.987	1$^-$	
250.035[h] *7*	0.71[h] *5*	2464.10	(2$^+$)	2214.07	(1$^-$)	
[x]255.05[af] *3*	0.40[a] *12*					
264.738 *9*	0.49 *3*	1640.601	4$^-$	1375.849	5$^+$	
272.31[h] *3*	0.45[h] *25*	1821.634	3$^-$	1549.27	3$^+$	
272.31[h] *3*	0.45[h] *25*	2228.68	2$^+$	1956.41	2$^+$	
272.31[h] *3*	0.45[h] *25*	2375.27	(1$^+$,2)	2102.92	1$^-$	
[x]272.847[@] *18*	0.25[@] *5*					
[x]278.07[af] *3*	0.84[a] *17*					
[x]278.49[af] *12*	0.63[a] *14*					
279.719 *5*	1.9 *2*	539.987	6$^+$	260.269	4$^+$	
[x]287.02[af] *3*	1.6[a] *5*					
287.139 *3*	11.9 *17*	1405.036	0$^+$	1117.899	2$^+$	

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γ(^{172}Yb) (continued)

E_γ[†]	I_γ[‡g]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[d]	δ	$I_{(\gamma+ce)}$[bg]	Comments
291.470 *4*	1.7 *2*	1757.450	(2)$^-$	1465.983	2$^+$				
294.819[@i] *17*	0.16[@] *5*	2341.90	(0$^+$,1$^+$,2$^+$)	2047.06	(2)$^+$				
317.04[@] *14*	0.14[@] *3*	1794.11	0$^+$	1476.862	2$^+$				
319.74[@] *13*	0.22[@] *13*	2214.07	(1$^-$)	1894.60	0$^+$				
321.94[@] *11*	0.19[@] *5*	1476.862	2$^+$	1154.987	1$^-$				
358.46 *17*	0.16 *16*	1476.862	2$^+$	1117.899	2$^+$				I_γ: 0.07 *7* (1988Su01) per 100-n captures is large by a factor of 7. α(K)exp=0.03 *3* gives D,E2.
362.1		1405.036	0$^+$	1042.939	0$^+$	E0		0.86 *4*	Transition from 1988Su01. ce(K)/100 n-captures=0.0435 *21*. X(E0/E2)=15.6 *12*, ρ(E0)=0.043 *5* (1988Su01).
365.72[h] *3*	0.4[h] *2*	2076.210	(1)$^-$	1710.510	3$^{(-)}$				
365.72[hi] *3*	0.4[h] *2*	2375.27	(1$^+$,2)	2010.01	1$^+$				Additional information 23.
377.546 *5*	2.3 *6*	1640.601	4$^-$	1263.059	4$^+$				
389.1		1794.11	0$^+$	1405.036	0$^+$	E0		0.054 *2*	Transition from 1988Su01. ce(K)/100 n-captures=0.000279 *14*. X(E0/E2)=0.19 *2* (1988Su01).
399.714 *18*	1.6 *2*	1662.839	3$^+$	1263.059	4$^+$				
401.429 *16*	0.44 *3*	1599.905	1$^-$	1198.523	2$^-$				
422.351[i] *16*	0.55 *20*	2317.0?	1,2$^{(+)}$	1894.60	0$^+$				Additional information 22.
^{x}436.146 *6*	1.3 *3*								Additional information 1.
437.67[h] *6*	0.32[h] *5*	1700.700	3$^+$	1263.059	4$^+$				
437.67[h] *6*	0.32[h] *5*	2195.06	(1,2$^+$)	1757.450	(2)$^-$				
^{x}443.7[&] *3*	0.53[&] *21*								
476.329 *18*	2.5 *2*	2076.210	(1)$^-$	1599.905	1$^-$				
^{x}485.5[af] *2*	2.2[a] *5*								
490.444 *8*	3.3 *3*	1662.839	3$^+$	1172.410	3$^+$	M1+E2	0.8 *3*		α(K)exp=0.029 *4*.
^{x}514.8						E0		1.3	Transition from 1988Su01. ce(K)/100 n-captures=0.068. Suggested placement: 1920-1405 (1988Su01). This would imply J^π(1920)=0$^+$. Existence of such a level remains to be confirmed.
^{x}519.47[af] *25*	1.8[a] *6*								
523.82[i] *3*	1.37 *15*	2480.11	(1$^+$,2$^+$)	1956.41	2$^+$				Additional information 25.
528.289 *7*	4.7 *3*	1700.700	3$^+$	1172.410	3$^+$	M1(+E2)	<0.4		α(K)exp=0.032 *4*.
535.696 *12*	1.10 *8*	1757.450	(2)$^-$	1221.758	3$^-$				
538.126[@] *23*	0.94[@] *6*	1710.510	3$^{(-)}$	1172.410	3$^+$				
^{x}540.07[@] *5*	0.30[@] *4*								
558.931 *10*	3.9 *3*	1757.450	(2)$^-$	1198.523	2$^-$	M1(+E2)	<0.7		α(K)exp=0.024 *3*.
^{x}560.5[af] *4*	2.1[a] *9*								
^{x}562.65[af] *20*	1.5[a] *5*								

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γ(^{172}Yb) (continued)

E_γ[†]	I_γ[‡g]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[d]	δ	$I_{(\gamma+ce)}$[bg]	Comments
565.02[i] 3	1.7 1	2228.68	2+	1662.839	3+				Additional information 19.
x568.850[@] 22	0.30[@] 3								
576.31 7	3.9 3	2176.25	(1)−	1599.905	1−	M1+E2	0.8 4		α(K)exp=0.019 3.
585.71[h] 3	0.35[h] 5	2194.400	(1+)	1608.529	2+				
585.71[hi] 3	0.35[h] 5	2480.11	(1+,2+)	1894.60	0+				Additional information 26.
599.862[@] 19	0.54[@] 6	1821.634	3−	1221.758	3−				
602.472 6	5.7 4	1757.450	(2)−	1154.987	1−	M1+E2	1.0 4		α(K)exp=0.0157 25.
605.7[ai] 4	2.3[a] 8	2214.07	(1−)	1608.529	2+				
610.963[i] 23	0.6 1	2076.210	(1)−	1465.983	2+				Additional information 16.
x616.01[@] 5	0.31[@] 7								
623.114 7	0.85 8	1821.634	3−	1198.523	2−				
x625.31[@] 3	0.37[@] 3								
630.79[hc@] 3	0.40[h@] 3	2387.777	(1+,2+)	1757.450	(2)−				
630.79[h@] 3	0.40[h@] 3	2480.11	(1+,2+)	1849.32	2+				
649.261[@] 28	0.49[@] 3	1821.634	3−	1172.410	3+				
666.08[c] 12	1.4 3	1821.634	3−	1154.987	1−				
x689.816[@] 21	0.56[@] 4								
x692.76[@] 4	0.43[@] 5								
697.86[@] 16	0.24[@] 5	2102.92	1−	1405.036	0+				
712.51[@] 4	0.43[@] 5	2375.27	(1+,2)	1662.839	3+				
x715.953 14	1.8 3								
717.502[@] 18	1.30[@] 14	2194.400	(1+)	1476.862	2+				
728.20[@] 10	0.44[@] 5	2194.400	(1+)	1465.983	2+				
728.8[@] 3	0.64[@] 16	2195.06	(1,2+)	1465.983	2+				
733.360[@] 25	0.57[@] 6	2341.90	(0+,1+,2+)	1608.529	2+				
734.77[@] 4	0.46[@] 9	1956.41	2+	1221.758	3−				
739.60[@] 4	0.24[@] 8	1894.60	0+	1154.987	1−				
746.598[h] 16	1.5[h] 6	1286.583	4+	539.987	6+				Additional information 7.
746.598[hi] 16	1.5[h] 6	2214.07	(1−)	1465.983	2+				Additional information 18.
751.2		1794.11	0+	1042.939	0+	E0		0.0021 4	Transition from 1988Su01. ce(K)/100 n-captures=0.000105 22. X(E0/E2)=0.043 14 (1988Su01).
x751.22[@] 8	0.17[@] 5								Additional information 2.
x757.0[&] 5	0.7[&] 3								
x767.292[@] 21	1.00[@] 15								
776.71[@] 7	0.29[@] 5	1894.60	0+	1117.899	2+	(E2)			α(K)exp=0.0087 17 gives δ(E2/M1)=0.9 +7−4 but ΔJ^π

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γ(^{172}Yb) (continued)

E_γ [†]	I_γ [‡g]	E_i(level)	J^π_i	E_f	J^π_f	Mult. [d]	Comments
							requires E2. Additional information 13.
[x]804.00[@] 5	0.32[@] 17						
811.6[h&i] 4	1.3[h&] 6	1351.6?	(5⁻)	539.987	6⁺		
811.6[h&i] 4	1.3[h&] 6	2010.01	1⁺	1198.523	2⁻		
816.35[i] 10	1.0 3	2480.11	(1⁺,2⁺)	1662.839	3⁺		Additional information 27.
[x]826.70[@] 12	0.54[@] 13						
839.4[h@] 4	0.44[h@] 11	1956.41	2⁺	1117.899	2⁺		
839.4[h@] 4	0.44[h@] 11	2387.777	(1⁺,2⁺)	1549.27	3⁺		
[x]846.29[@] 4	0.62[@] 7						
850.69[@] 9	0.52[@] 6	2327.64	(2⁺)	1476.862	2⁺		
854.435[hi] 16	3.9[h] 6	2010.01	1⁺	1154.987	1⁻		Additional information 15.
854.435[h] 16	3.9[h] 6	2076.210	(1)⁻	1221.758	3⁻	E2	α(K)exp=0.0049 6 gives δ(E2/M1)>1.7. Adopted ΔJ$^\pi$ requires E2.
857.639 7	40 2	1117.899	2⁺	260.269	4⁺	E2	α(K)exp=0.0035 5, α(L1)exp=0.0002 1.
861.7[&i] 3	1.7[&] 5	2327.64	(2⁺)	1465.983	2⁺		
871.564[@] 21	2.02[@] 15	2480.11	(1⁺,2⁺)	1608.529	2⁺		
877.65[@] 3	1.08[@] 6	2076.210	(1)⁻	1198.523	2⁻		
[x]880.509[@] 25	1.22[@] 8						
[x]888.65[@] 12	0.43[@] 9						
892.11[h@] 4	0.71[h@] 5	2010.01	1⁺	1117.899	2⁺		
892.11[h@] 4	0.71[h@] 5	2047.06	(2)⁺	1154.987	1⁻		
912.161 11	9.4 10	1172.410	3⁺	260.269	4⁺		
[x]924.80[@] 11	0.44[@] 6						
[x]937.61[@] 9	0.79[@] 18						
961.478 12	23 2	1221.758	3⁻	260.269	4⁺		
964.196 10	44 3	1042.939	0⁺	78.742	2⁺		
[x]967.24[@] 5	1.75[@] 15						
995.740[c] 21	3.9 3	2194.400	(1⁺)	1198.523	2⁻		
1002.81[h] 4	2.5[h] 2	1263.059	4⁺	260.269	4⁺	(E2)	α(K)exp=0.0022 2 (1988Su01) is low by≈30% for E2. X(E0/E2)≤0.001.
1002.81[hi] 4	2.5[h] 2	2480.11	(1⁺,2⁺)	1476.862	2⁺		Additional information 28.
[x]1005.95[@] 4	2.06[@] 16						
[x]1009.58[@] 13	0.76[@] 15						
1013.85[i] 3	2.4 3	2480.11	(1⁺,2⁺)	1465.983	2⁺		Additional information 29.
1021.27 5	3.5 3	2176.25	(1)⁻	1154.987	1⁻		
1026.43[hi] 8	2.9[h] 2	1286.583	4⁺	260.269	4⁺		Additional information 8.
1026.43[h] 8	2.9[h] 2	2312.94	(2⁺)	1286.583	4⁺		

$^{172}_{70}$Yb$_{102}$-6

γ(^{172}Yb) (continued)

E_γ[†]	I_γ[‡g]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[d]	δ	$I_{(\gamma+ce)}$[bg]	Comments
[x]1030.0[af] 9	22[a] 4								
1039.149 10	42 2	1117.899	2$^+$	78.742	2$^+$	M1+E2+E0			Iγ=1.6 (1988Su01) per 100 n-captures seems a misprint. It should read 2.6. α(K)exp=0.0054 7, α(L1)exp=0.0009 1. X(E0/E2)=0.08 1 (1988Su01),<0.106 (1978La14). ρ(E0)=0.95 11 (1988Su01).
1042.926 22		1042.939	0$^+$	0.0	0$^+$	E0		0.076 4	ce(K)/100 n-captures=0.00386 19 (1988Su01). Additional information 5. X(E0/E2)=0.029 2 (1988Su01), 0.028 4 (1978La14). ρ=0.048 7 (1978La14), 0.049 8 (1988Su01).
[x]1053.81[@] 4	1.70[@] 11								
[x]1056.89[@] 6	1.14[@] 9								
[x]1067.16[@] 8	1.43[@] 18								
1070.40 3	4.8 3	1330.739	4$^-$	260.269	4$^+$				α(K)exp=0.0028 5 gives δ(E2/M1)>1.6 but ΔJ$^\pi$ requires E1.
[x]1072.90[@] 9	1.43[@] 22					M1(+E2)	<1.6		α(K)exp=0.0051 17.
1076.250 10	100.0 5	1154.987	1$^-$	78.742	2$^+$	E1			α(K)exp=0.0011 1, α(L1)exp=0.00010 3.
1093.663 13	47 2	1172.410	3$^+$	78.742	2$^+$	M1,E2			α(K)exp=0.0029 3, α(L1)exp=0.0004 1.
[x]1099.30[@] 15	1.9[@] 5					M1,E2			Additional information 3. α(K)exp=0.0047 23.
1117.94 3	16.5 20	1117.899	2$^+$	0.0	0$^+$	E2			α(K)exp=0.0024 2, α(L1)exp=0.0006 1 give δ(E2/M1)>2.7. Adopted ΔJ$^\pi$ requires E2.
1119.783 11	88 6	1198.523	2$^-$	78.742	2$^+$	E1			α(K)exp=0.0012 1, α(L1)exp=0.00010 2.
[x]1126.96[&] 25	2.4[&] 5								
[x]1132.55[@] 8	2.06[@] 18								
1134.56[i] 5	2.6 3	2176.25	(1)$^-$	1042.939	0$^+$	(D)			Additional information 17. α(K)exp=0.004 4.
1143.024 15	20.4 10	1221.758	3$^-$	78.742	2$^+$	E1			α(K)exp=0.0007 2.
[x]1150.2[af] 5	20[a] 4								
1152.08 10	4.1 3	2195.06	(1,2$^+$)	1042.939	0$^+$				
1154.980 15	19.1 13	1154.987	1$^-$	0.0	0$^+$	E1			α(K)exp=0.0010 1.
[x]1157.83[@] 6	1.78[@] 14								
[x]1167.84[&f] 17	3.49[&] 10								
1172.68 11	2.5 15	2327.64	(2$^+$)	1154.987	1$^-$				
[x]1174.55[@] 19	1.27[@] 22								
[x]1182.56[@] 23	0.73[@] 15								
1185.60[@] 12	1.43[@] 16	2228.68	2$^+$	1042.939	0$^+$				
[x]1196.89[@] 19	1.11[@] 21								
1206.2 2	1.5 2	1465.983	2$^+$	260.269	4$^+$				
1207.5 3	0.9 3	1286.583	4$^+$	78.742	2$^+$				

From ENSDF

γ(^{172}Yb) (continued)

E_γ[†]	I_γ[‡g]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[d]	δ	$I_{(\gamma+ce)}$[bg]	Comments
1216.01[c@] *11*	1.24[@] *13*	2387.777	(1$^+$,2$^+$)	1172.410	3$^+$				
[x]1227.78[&f] *12*	3.2[&] *5*								
1233.51[c@] *16*	0.60[@] *11*	2387.777	(1$^+$,2$^+$)	1154.987	1$^-$				
1242.29 *13*	1.40 *12*	2464.10	(2$^+$)	1221.758	3$^-$				
[x]1250.73[&f] *15*	3.2[&] *5*								
[x]1255.7[&f] *3*	3.9[&] *12*								
1269.71[h] *24*	2.0[h] *12*	2312.94	(2$^+$)	1042.939	0$^+$				
1269.71[h] *24*	2.0[h] *12*	2387.777	(1$^+$,2$^+$)	1117.899	2$^+$				
1281.89 *13*	1.6 *2*	2480.11	(1$^+$,2$^+$)	1198.523	2$^-$				
1288.88 *11*	3.6 *3*	1549.27	3$^+$	260.269	4$^+$				
[x]1303.29[&f] *18*	4.9[&] *12*								
[x]1305.39[@] *9*	2.22[@] *22*								
[x]1315.45 *12*	1.9 *2*								
1326.10 *7*	10.5 *6*	1405.036	0$^+$	78.742	2$^+$				α(K)exp=0.0012 *4* gives E1 or E2. B(E2)=1.5×10^{-5} *2* (1986An14).
1344.32[i] *12*	2.2 *3*	2387.777	(1$^+$,2$^+$)	1042.939	0$^+$				Additional information 24.
[x]1349.24 *15*	2.2 *3*								Additional information 4.
[x]1367.0[@] *3*	1.7[@] *3*								
1373.0[i] *5*	1.6 *5*	1632.24?	(4)$^+$	260.269	4$^+$				Additional information 10.
1387.22 *3*	27.3 *16*	1465.983	2$^+$	78.742	2$^+$	E2(+M1+E0)	>3		α(K)exp=0.0014 *1*. X(E0/E2)≤0.002 (1988Su01).
[x]1390.48[@] *18*	2.4[@] *4*								
1397.97 *4*	25.7 *13*	1476.862	2$^+$	78.742	2$^+$	M1+E2(+E0)	0.8 *5*		E_γ: poor fit. Deviation is≈0.15 keV. α(K)exp=0.0022 *3*, α(L1)exp=0.0005 *2*, α(L2)exp=0.0005 *2*. X(E0/E2)≤0.04 (1988Su01),<0.029 (1978La14).
1405.04 *2*		1405.036	0$^+$	0.0	0$^+$	E0		0.54 *2*	ce(K)/100 n-captures=0.0278 *11* (1988Su01). Additional information 9. ρ(E0)=0.014 *2* (1986An14), 0.015 *2* (1988Su01). X(E0/E2)=2.93 *20* (1988Su01), 2.8 *3* (1978La14).
[x]1408.67[@] *21*	2.5[@] *4*								
[x]1434.9[@] *4*	1.4[@] *4*								
[x]1439.38[@] *23*	2.1[@] *4*								
1450.24 *7*	6.1 *7*	1710.510	3$^{(-)}$	260.269	4$^+$				
[x]1452.6[@] *8*	3.0[@] *11*								
[x]1458.25[&f] *15*	4.4[&] *4*								
1465.97 *3*	18.2 *9*	1465.983	2$^+$	0.0	0$^+$	E2			α(K)exp=0.0018 *2* gives δ(E2/M1)>1.
1470.46 *4*	11.1 *7*	1549.27	3$^+$	78.742	2$^+$	E2			α(K)exp=0.0014 *3* gives δ(E2/M1)>2.
1476.78 *6*	9.3 *6*	1476.862	2$^+$	0.0	0$^+$	E2			α(K)exp=0.0012 *2*.

γ(^{172}Yb) (continued)

$E_γ$[†]	$I_γ$[‡g]	E_i(level)	$J^π_i$	E_f	$J^π_f$	Mult.[d]	δ	$I_{(γ+ce)}$[bg]	Comments
[x]1482.58[&f] *20*	5.1[&] *20*								
[x]1489.55 *14*	2.8 *6*								
[x]1495.8[@] *3*	1.4[@] *3*								
[x]1501.24 *20*	4.1 *6*								
[x]1508.3[@] *5*	1.7[@] *3*								
1521.114 *24*	37.1 *20*	1599.905	1^-	78.742	2^+	E1			α(K)exp=0.0007 *1*.
1529.75 *3*	18.3 *10*	1608.529	2^+	78.742	2^+	E2(+M1+E0)	>1.7		α(K)exp=0.0015 *1* (1988Su01), 0.0013 *2* (1985Ge02). X(E0/E2)=0.0010 *2* (1988Su01).
[x]1549.04[&f] *25*	4.0[&] *10*								
1553.47[&i] *25*	5.0[&] *8*	1632.24?	$(4)^+$	78.742	2^+				
1584.17 *8*	7.2 *7*	1662.839	3^+	78.742	2^+				
1589.03 *7*	7.2 *5*	1849.32	2^+	260.269	4^+				
1599.79 *7*	24.1 *17*	1599.905	1^-	0.0	0^+				
1608.51 *4*	15.6 *11*	1608.529	2^+	0.0	0^+	E2			α(K)exp=0.0016 *2* gives δ(E2/M1)=1.1 *+9−5*; but adopted $ΔJ^π$ requires E2.
1622.1 *3*	5.8 *5*	1700.700	3^+	78.742	2^+				
1631.67 *6*	10.3 *7*	1710.510	$3^{(-)}$	78.742	2^+				
[x]1678.55[&f] *12*	6.3[&] *10*								
1696.00 *10*	5.5 *3*	1956.41	2^+	260.269	4^+				
1715.37 *5*	17.2 *11*	1794.11	0^+	78.742	2^+	E2			α(K)exp=0.0008 *2*.
[x]1724.88[&f] *15*	4.3[&] *5*								
1743.27 *15*	4.7 *9*	1821.634	3^-	78.742	2^+				
[x]1765.84[&f] *25*	7.8[&] *9*								
1770.9 *4*	14 *4*	1849.32	2^+	78.742	2^+	E0+M1+E2			α(K)exp=0.0062 *9*.
1787.85[&i] *20*	5.2[&] *6*	2047.06	$(2)^+$	260.269	4^+				
1794.04 *9*		1794.11	0^+	0.0	0^+	E0		0.049 *2*	ce(K)/100 n-captures=0.00242 *10* (1988Su01). Additional information 12. X(E0/E2)=0.38 *3* (1988Su01), 0.34 *4* (1978La14).
1815.70 *7*	14.1 *10*	1894.60	0^+	78.742	2^+	E2			α(K)exp=0.0009 *1*.
[x]1821.8[&f] *3*	5.0[&] *15*								
[x]1844.9[&f] *3*	5.3[&] *8*								
1849.6 *3*	8.8 *6*	1849.32	2^+	0.0	0^+	(E2)			α(K)exp=0.0007 *3* gives E1 or E2.
[x]1858.8[&f] *4*	6.0[&] *18*								
1877.89 *16*	6.8 *6*	1956.41	2^+	78.742	2^+	E0+M1+E2			α(K)exp=0.0021 *3*.
[x]1883.87[&f] *25*	4.7[&] *7*								
[x]1890.0 *2*	6.5 *22*								
1894.53 *8*		1894.60	0^+	0.0	0^+	E0		0.0103 *3*	ce(K)/100 n-captures=0.000509 *20* (1988Su01). Additional information 14. X(E0/E2)=0.14 *1* (1988Su01), 0.10 *3* (1978La14).
[x]1911.9[&f] *3*	3.9[&] *6*								

From ENSDF

γ(^{172}Yb) (continued)

E_γ[†]	I_γ[‡g]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[d]	δ	Comments
[x]1919.4 6	4.5 15							
1931.28 9	13.5 10	2010.01	1^+	78.742	2^+	E2(+M1)	>1	α(K)exp=0.0010 1.
1956.5 4	5.3 5	1956.41	2^+	0.0	0^+			
1968.19[h] 9	11.8[h] 23	2047.06	$(2)^+$	78.742	2^+	E2(+M1)	>3	α(K)exp=0.0008 1.
1968.19[h] 9	11.8[h] 23	2228.68	2^+	260.269	4^+			Additional information 20.
1997.39 15	8.5 10	2076.210	$(1)^-$	78.742	2^+			
2009.92 15	14.3 16	2010.01	1^+	0.0	0^+	(M1)		α(K)exp=0.0009 2 gives δ(E2/M1)>0.6 but ΔJ^π requires M1.
[x]2019.47[&f] 25	8.3[&] 12							
2024.38 18	15.5 16	2102.92	1^-	78.742	2^+	E1		α(K)exp=0.0005 1.
2102.4 3	7.6 5	2102.92	1^-	0.0	0^+			
2115.5[&i] 3	7.5[&] 11	2194.400	(1^+)	78.742	2^+			
[x]2124.5[&f] 3	7.5[&] 23							
2135.14 14	8.3 7	2214.07	(1^-)	78.742	2^+			
2195.4[@] 3	12.7[@] 16	2195.06	$(1,2^+)$	0.0	0^+			
[x]2211.9[&f] 6	7[&] 4							
2233.6[i] 3	8 2	2312.94	(2^+)	78.742	2^+			Additional information 21.
2238.52[&i] 20	10.0[&] 20	2317.0?	$1,2^{(+)}$	78.742	2^+			
2263.75 20	8 2	2341.90	$(0^+,1^+,2^+)$	78.742	2^+			
2296.2 4	6.8 11	2375.27	$(1^+,2)$	78.742	2^+			
2327.3 3	18 3	2327.64	(2^+)	0.0	0^+	(E2)		α(K)exp=0.0007 2 gives M1,E2; but adopted ΔJ^π requires E2.
2401.39 8	39 3	2480.11	$(1^+,2^+)$	78.742	2^+	(E2(+M1))	>1	α(K)exp=0.0006 1.
[x]2700.3[#f] 15								
3667.8 7	78 16	8019.33	$0^-,1^-$	4351.5				
3767.8 6	128 19	8019.33	$0^-,1^-$	4251.5				
3856.5 6	74 11	8019.33	$0^-,1^-$	4162.8				
3941.1 7	54 11	8019.33	$0^-,1^-$	4078.2				
3957.2 6	27 5	8019.33	$0^-,1^-$	4062.1				
3963.1 11	15 4	8019.33	$0^-,1^-$	4056.2				
3975.9 7	32 6	8019.33	$0^-,1^-$	4043.4				
3998.5 7	43 6	8019.33	$0^-,1^-$	4020.8				
4010.5 7	33 5	8019.33	$0^-,1^-$	4008.8				
4028.6 7	75 15	8019.33	$0^-,1^-$	3990.7				
4034.4 7	93 19	8019.33	$0^-,1^-$	3984.9				
4056.3 7	42 8	8019.33	$0^-,1^-$	3963.0				
4063.6 7	42 8	8019.33	$0^-,1^-$	3955.7				
4091.7 6	20 4	8019.33	$0^-,1^-$	3927.6				
4102.0 6	41 6	8019.33	$0^-,1^-$	3917.3				
4111.0 7	19 4	8019.33	$0^-,1^-$	3908.3				
4142.9 6	41 6	8019.33	$0^-,1^-$	3876.4				
4163.0 6	30 6	8019.33	$0^-,1^-$	3856.3				
4199.8 9	14 4	8019.33	$0^-,1^-$	3819.5				

γ(^{172}Yb) (continued)

E_γ †	I_γ ‡g	E_i(level)	J_i^π	E_f
4220.3 6	77 12	8019.33	$0^-,1^-$	3799.0
4233.0 7	18 4	8019.33	$0^-,1^-$	3786.3
4252.8 7	60 9	8019.33	$0^-,1^-$	3766.5
4264.6 10	24 7	8019.33	$0^-,1^-$	3754.7
4271.7 5	97 15	8019.33	$0^-,1^-$	3747.6
4278.4 5	104 15	8019.33	$0^-,1^-$	3740.9
4300.1 6	49 10	8019.33	$0^-,1^-$	3719.2
4305.1 6	47 9	8019.33	$0^-,1^-$	3714.2
4338.4 6	46 7	8019.33	$0^-,1^-$	3680.9
4349.6 6	14 3	8019.33	$0^-,1^-$	3669.7
4362.3 6	35 5	8019.33	$0^-,1^-$	3657.0
4378.9 6	34 7	8019.33	$0^-,1^-$	3640.4
4385.0 7	39 10	8019.33	$0^-,1^-$	3634.3
4391.8 9	21 5	8019.33	$0^-,1^-$	3627.5
4432.4 7	45 7	8019.33	$0^-,1^-$	3586.9
4449.3 6	51 8	8019.33	$0^-,1^-$	3570.0
4462.0 5	31 5	8019.33	$0^-,1^-$	3557.3
4475.9 6	30 5	8019.33	$0^-,1^-$	3543.4
4513.3 6	19 3	8019.33	$0^-,1^-$	3506.0
4524.6 6	97 15	8019.33	$0^-,1^-$	3494.7
4529.0 12	33 10	8019.33	$0^-,1^-$	3490.3
4554.2 6	31 5	8019.33	$0^-,1^-$	3465.1
4592.9 7	22 4	8019.33	$0^-,1^-$	3426.4
4611.4 9	16 4	8019.33	$0^-,1^-$	3407.9
4631.7 5	59 9	8019.33	$0^-,1^-$	3387.6
4637.8 5	68 10	8019.33	$0^-,1^-$	3381.5
4652.6 7	17 3	8019.33	$0^-,1^-$	3366.7
4658.6 7	31 6	8019.33	$0^-,1^-$	3360.7
4672.7 5	57 9	8019.33	$0^-,1^-$	3346.6
4684.7 9	25 6	8019.33	$0^-,1^-$	3334.6
4710.8 7	10 2	8019.33	$0^-,1^-$	3308.5
4719.1 6	25 5	8019.33	$0^-,1^-$	3300.2
4730.1 8	21 4	8019.33	$0^-,1^-$	3289.2
4736.2 11	24 5	8019.33	$0^-,1^-$	3283.1
4759.1 5	104 15	8019.33	$0^-,1^-$	3260.2
4764.9 7	32 6	8019.33	$0^-,1^-$	3254.4
4813.8 7	11 2	8019.33	$0^-,1^-$	3205.5
4843.7 7	10 2	8019.33	$0^-,1^-$	3175.6
4878.0 6	41 10	8019.33	$0^-,1^-$	3141.3
4888.7 6	84 13	8019.33	$0^-,1^-$	3130.6
4899.2 6	52 8	8019.33	$0^-,1^-$	3120.1
4920.6 6	35 5	8019.33	$0^-,1^-$	3098.7
4944.5 6	24 5	8019.33	$0^-,1^-$	3074.8

γ(^{172}Yb) (continued)

E_γ [†]	I_γ [‡g]	E_i(level)	J_i^π	E_f	J_f^π	Comments
4982.5 6	39 6	8019.33	$0^-,1^-$	3036.8		
4999.1 6	19 3	8019.33	$0^-,1^-$	3020.2		
5017.8 9	29 6	8019.33	$0^-,1^-$	3001.5		
5025.5 9	26 5	8019.33	$0^-,1^-$	2993.8		
5033.9 8	18 4	8019.33	$0^-,1^-$	2985.4		
5059.4 6	29 4	8019.33	$0^-,1^-$	2959.8		
5076.2 6	23 3	8019.33	$0^-,1^-$	2943.0		
5102.8 8	13 3	8019.33	$0^-,1^-$	2916.4		
5131.9 8	9 2	8019.33	$0^-,1^-$	2887.3		
5147.0 5	134 13	8019.33	$0^-,1^-$	2872.2		
5157.4 9	15 5	8019.33	$0^-,1^-$	2861.8		
5174.9 5	31 5	8019.33	$0^-,1^-$	2844.3		
5184.6 5	30 5	8019.33	$0^-,1^-$	2834.6		
5200.7 7	15 3	8019.33	$0^-,1^-$	2818.5		
5211.2 4	14 4	8019.33	$0^-,1^-$	2808.0		
5231.6 4	25 3	8019.33	$0^-,1^-$	2787.6		
5237.8 14	17 5	8019.33	$0^-,1^-$	2781.4		
5242.4 6	42 6	8019.33	$0^-,1^-$	2776.8		
5252.9[@] 4	3.8[@] 5	8019.33	$0^-,1^-$	2766.3		
5271.9 3	47 4	8019.33	$0^-,1^-$	2747.3		
5286.4 3	22 2	8019.33	$0^-,1^-$	2732.8		
5318.9 3	18 2	8019.33	$0^-,1^-$	2700.3		
5342.2[i] 3	9.5 17	8019.33	$0^-,1^-$	2676.0		
5351.1 3	13.5 12	8019.33	$0^-,1^-$	2668.1		
5391.3 3	49 5	8019.33	$0^-,1^-$	2627.9		
5411.5 3	23 2	8019.33	$0^-,1^-$	2607.5		
5420.3[@] 4	3.8[@] 5	8019.33	$0^-,1^-$	2598.9		
5430.7 4	3.8 8	8019.33	$0^-,1^-$	2588.5		
5436.4 4	4.8 7	8019.33	$0^-,1^-$	2582.8		Additional information 30.
5443.55 25	16.4 15	8019.33	$0^-,1^-$	2575.7		
5459.7 3	9 2	8019.33	$0^-,1^-$	2559.5		
5472.2 6	4.5 25	8019.33	$0^-,1^-$	2547.0		
5480.0[@] 4	4.8[@] 8	8019.33	$0^-,1^-$	2539.2		
5484.3 3	6.0 7	8019.33	$0^-,1^-$	2534.9		
5495.05 25	11.0 10	8019.33	$0^-,1^-$	2524.2		
5515.28 23	35 3	8019.33	$0^-,1^-$	2503.9		
5538.8 3	943 66	8019.33	$0^-,1^-$	2480.11	$(1^+,2^+)$	
5555.06 25	19 7	8019.33	$0^-,1^-$	2464.10	(2^+)	
5630.7[@] 5	3.8[@] 7	8019.33	$0^-,1^-$	2387.777	$(1^+,2^+)$	
5643.63 25	50 5	8019.33	$0^-,1^-$	2375.27	$(1^+,2)$	
5677.23 25	24 2	8019.33	$0^-,1^-$	2341.90	$(0^+,1^+,2^+)$	
5690.89 24	224 16	8019.33	$0^-,1^-$	2327.64	(2^+)	

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γ(^{172}Yb) (continued)

E_γ[†]	I_γ[‡g]	E_i(level)	J_i^π	E_f	J_f^π
5702.2 *3*	17 *2*	8019.33	$0^-,1^-$	2317.0?	$1,2^{(+)}$
5706.9 *3*	25 *3*	8019.33	$0^-,1^-$	2312.94	(2^+)
5791.20 *23*	31 *3*	8019.33	$0^-,1^-$	2228.68	2^+
5824.84 *23*	194 *14*	8019.33	$0^-,1^-$	2194.400	(1^+)
5915.86 *23*	19.5 *18*	8019.33	$0^-,1^-$	2102.92	1^-
5943.15 *23*	11.6 *12*	8019.33	$0^-,1^-$	2076.210	$(1)^-$
5972.6 *7*	6.2 *15*	8019.33	$0^-,1^-$	2047.06	$(2)^+$
6009.15 *22*	167 *12*	8019.33	$0^-,1^-$	2010.01	1^+
6062.48 *23*	12.0 *11*	8019.33	$0^-,1^-$	1956.41	2^+
6100.0[i] *10*	4 *1*	8019.33	$0^-,1^-$	1920?	
6124.62 *22*	55 *4*	8019.33	$0^-,1^-$	1894.60	0^+
6169.84 *22*	82 *6*	8019.33	$0^-,1^-$	1849.32	2^+
6225.00 *22*	55 *4*	8019.33	$0^-,1^-$	1794.11	0^+
6410.34 *23*	3.2 *4*	8019.33	$0^-,1^-$	1608.529	2^+
6420.48[e] *23*	5.4 *16*	8019.33	$0^-,1^-$	1599.905	1^-
[x]6431.5[#f] *20*					
6542.44 *22*	62 *4*	8019.33	$0^-,1^-$	1476.862	2^+
6553.03 *22*	21 *2*	8019.33	$0^-,1^-$	1465.983	2^+
6614.12 *22*	81 *6*	8019.33	$0^-,1^-$	1405.036	0^+
6820.62 *22*	27 *2*	8019.33	$0^-,1^-$	1198.523	2^-
6864.28 *27*	28 *2*	8019.33	$0^-,1^-$	1154.987	1^-
6901.32 *22*	31 *2*	8019.33	$0^-,1^-$	1117.899	2^+
6976.22 *22*	53 *4*	8019.33	$0^-,1^-$	1042.939	0^+
7940.36 *24*	16.9 *12*	8019.33	$0^-,1^-$	78.742	2^+
8018.97 *25*	100	8019.33	$0^-,1^-$	0.0	0^+

[†] For secondary transitions the values are weighted averages from 1985Ge02 and 1975Gr32. Below 300 keV, a few γ rays from 1973Wi19 were also used in averaging. The primary transitions are from 1985Ge02 above 5210 and from 1975Gr32 below this energy.

[‡] For secondary transitions the values are relative intensities from unweighted averages of 1985Ge02 and 1975Gr32. The intensities for primary transitions are averages of 1985Ge02 and 1975Gr32 for γ rays above 5210 keV. Below this, values are available from 1975Gr32 only. For primary γ rays, values are relative to 100 for 8020γ and for secondary γ rays, values are relative to 100 for 1076γ. Intensity per 100 n-captures can be obtained by multiplying by 0.063 (1985Ge02) for secondary transitions and 0.00107 *53* (1985Ge02) for primary transitions.

[#] Reported by 1971Al14 only. Iγ(2700γ)=84, Iγ(6431γ)=7 relative to 100 for 8019γ. Treated as uncertain since it is not confirmed in other studies.

[@] Reported by 1985Ge02 only.

[&] Reported by 1975Gr32 only. It should be treated as uncertain since a γ ray of this intensity should have been detected by 1985Ge02.

[a] From 1973Wi19. Iγ is normalized to 100 for 1076γ.

[b] Deduced from ce(K) per 100 n-captures (1988Su01). Appropriate contribution from other shells (≈20%) is added to the ce(K) intensity. The total electron intensity is divided by 0.063 to normalize the E0 intensity to the same scale as γ-ray intensity.

[c] Poor fit from least-square analysis.

[d] From ce data (1985Ge02). Data normalized to α(K)(1076γ,E1)=0.0011.

[e] Poor fit in level scheme, deviation is≈1 keV.

[f] Uncertain γ ray.

[g] For intensity per 100 neutron captures, multiply by 0.063.

[h] Multiply placed with undivided intensity.

[i] Placement of transition in the level scheme is uncertain.

[x] γ ray not placed in level scheme.

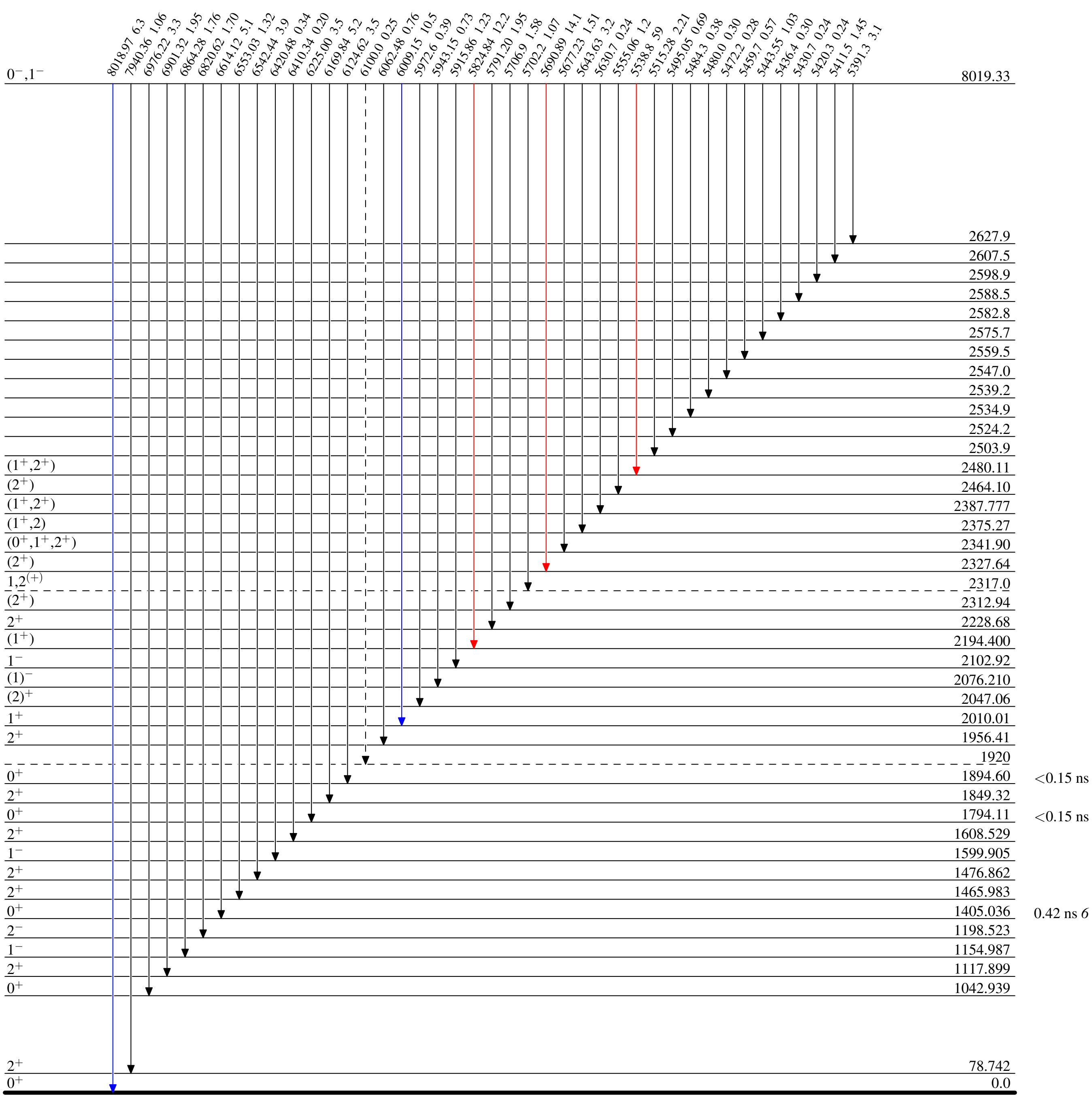
^{171}Yb(n,γ) E=thermal 1985Ge02,1975Gr32,1988Su01

Legend

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

Level Scheme

Intensities: Iγ per 100 N-captures for secondary transitions. Relative intensities for primary transitions



$^{172}_{70}Yb_{102}$

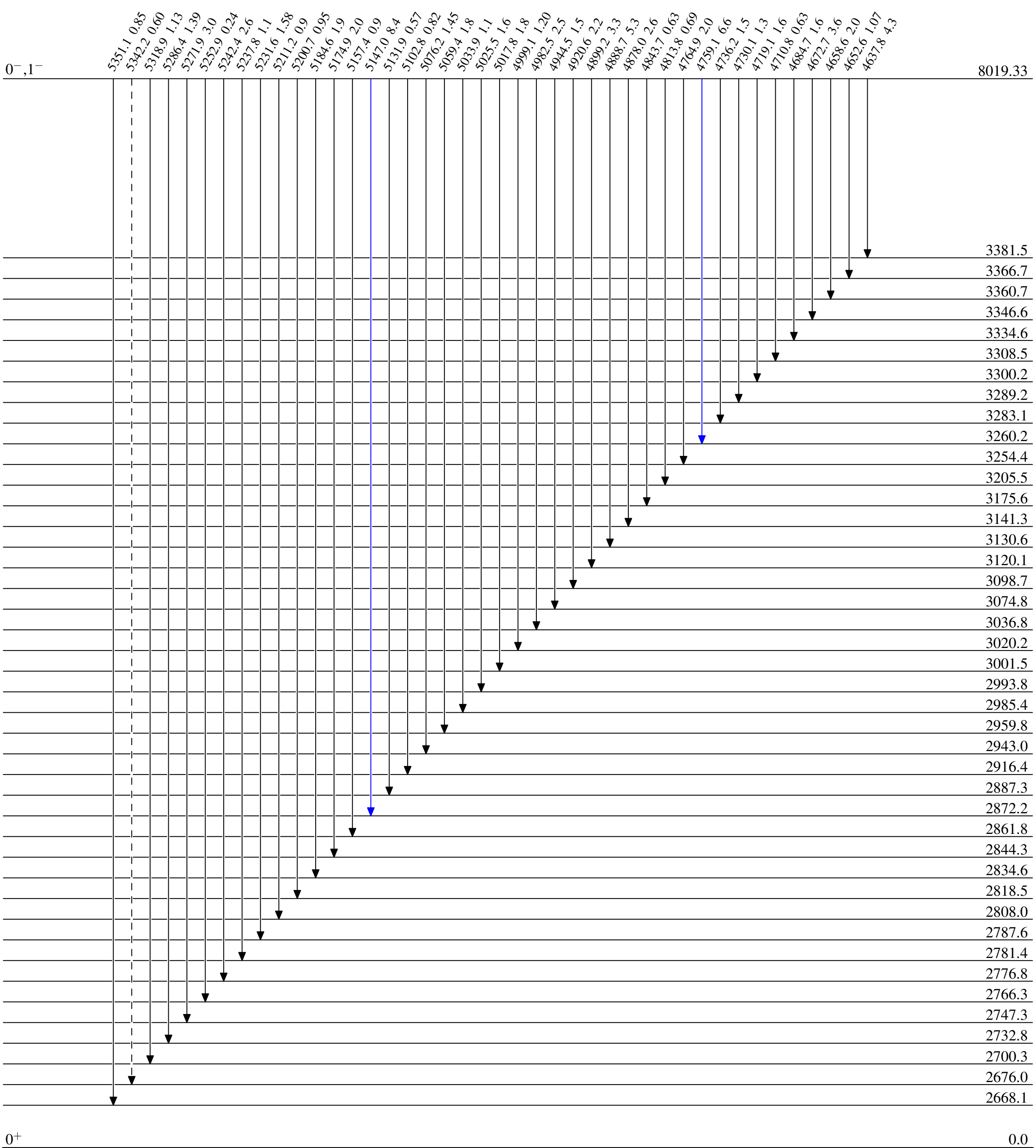
^{171}Yb(n,γ) E=thermal 1985Ge02,1975Gr32,1988Su01

Legend

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

Level Scheme (continued)

Intensities: Iγ per 100 N-captures for secondary transitions. Relative intensities for primary transitionsIntensities for primary transitions



$^{172}_{70}Yb_{102}$

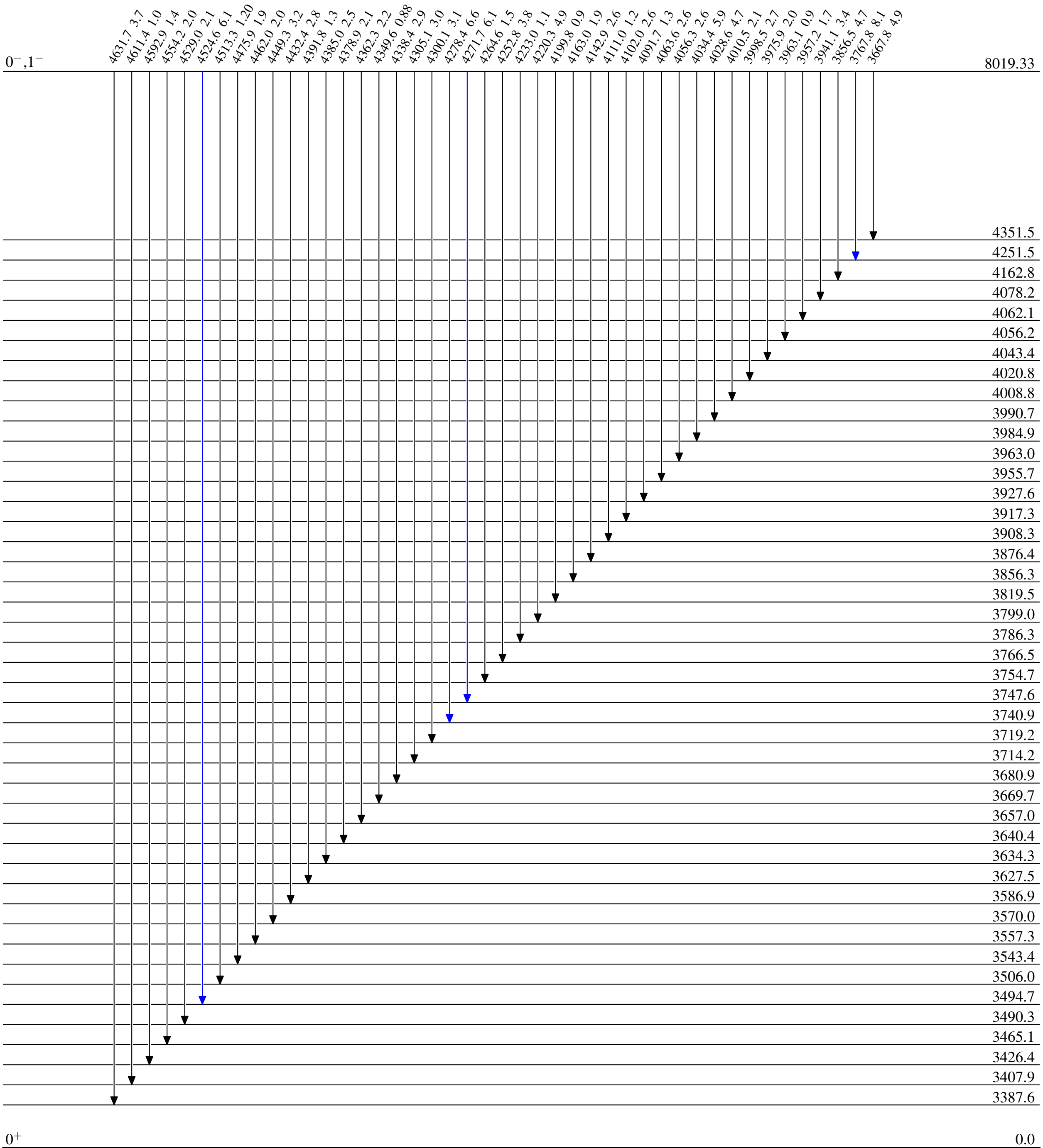
^{171}Yb(n,γ) E=thermal 1985Ge02,1975Gr32,1988Su01

Legend

Level Scheme (continued)

Intensities: Iγ per 100 N-captures for secondary transitions. Relative intensities for primary transitionsIntensities for primary transitions

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$

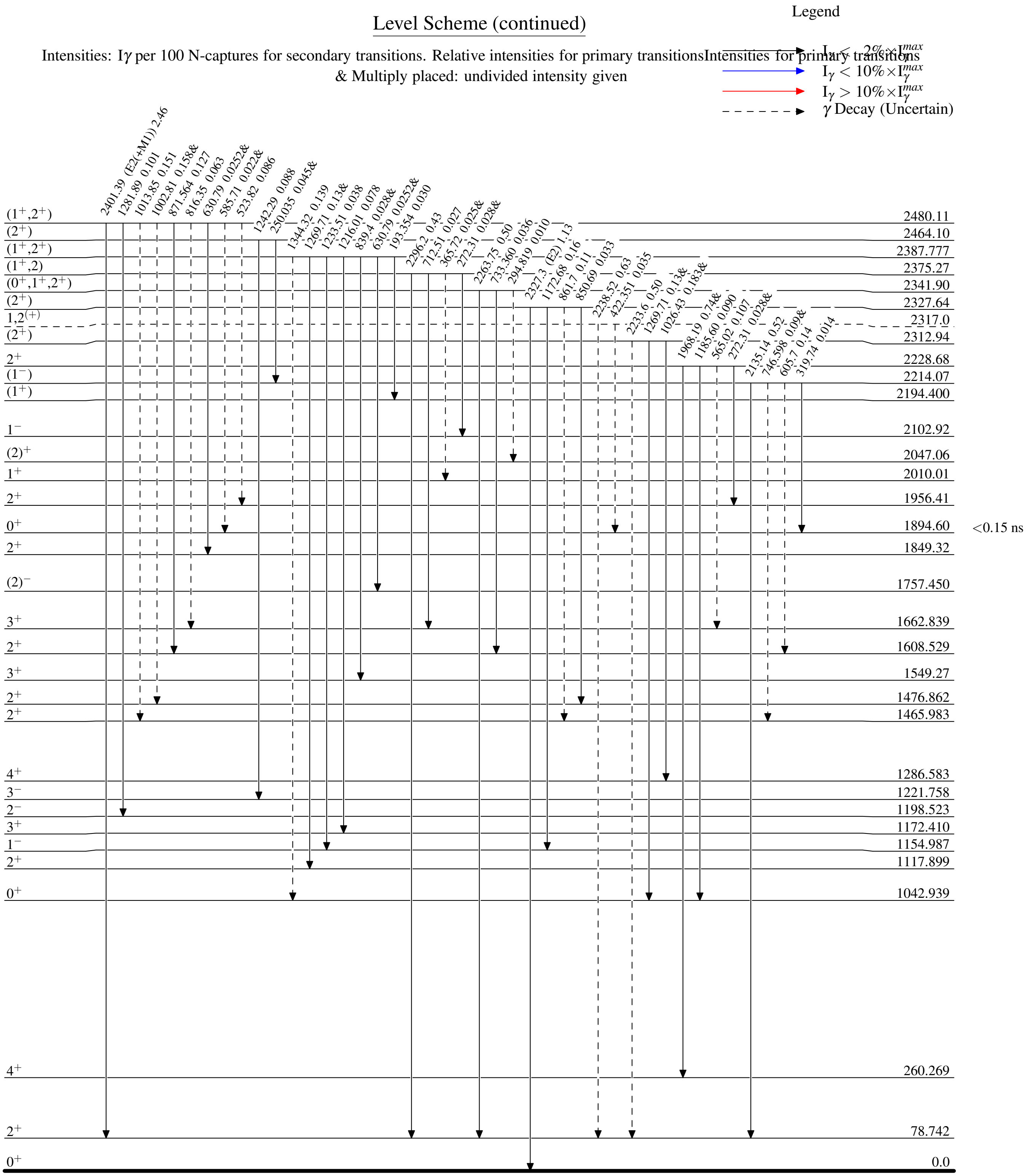


$^{172}_{70}Yb_{102}$

^{171}Yb(n,γ) E=thermal 1985Ge02,1975Gr32,1988Su01

Level Scheme (continued)

Intensities: Iγ per 100 N-captures for secondary transitions. Relative intensities for primary transitions
& Multiply placed: undivided intensity given



$^{172}_{70}Yb_{102}$

^{171}Yb(n,γ) E=thermal 1985Ge02,1975Gr32,1988Su01

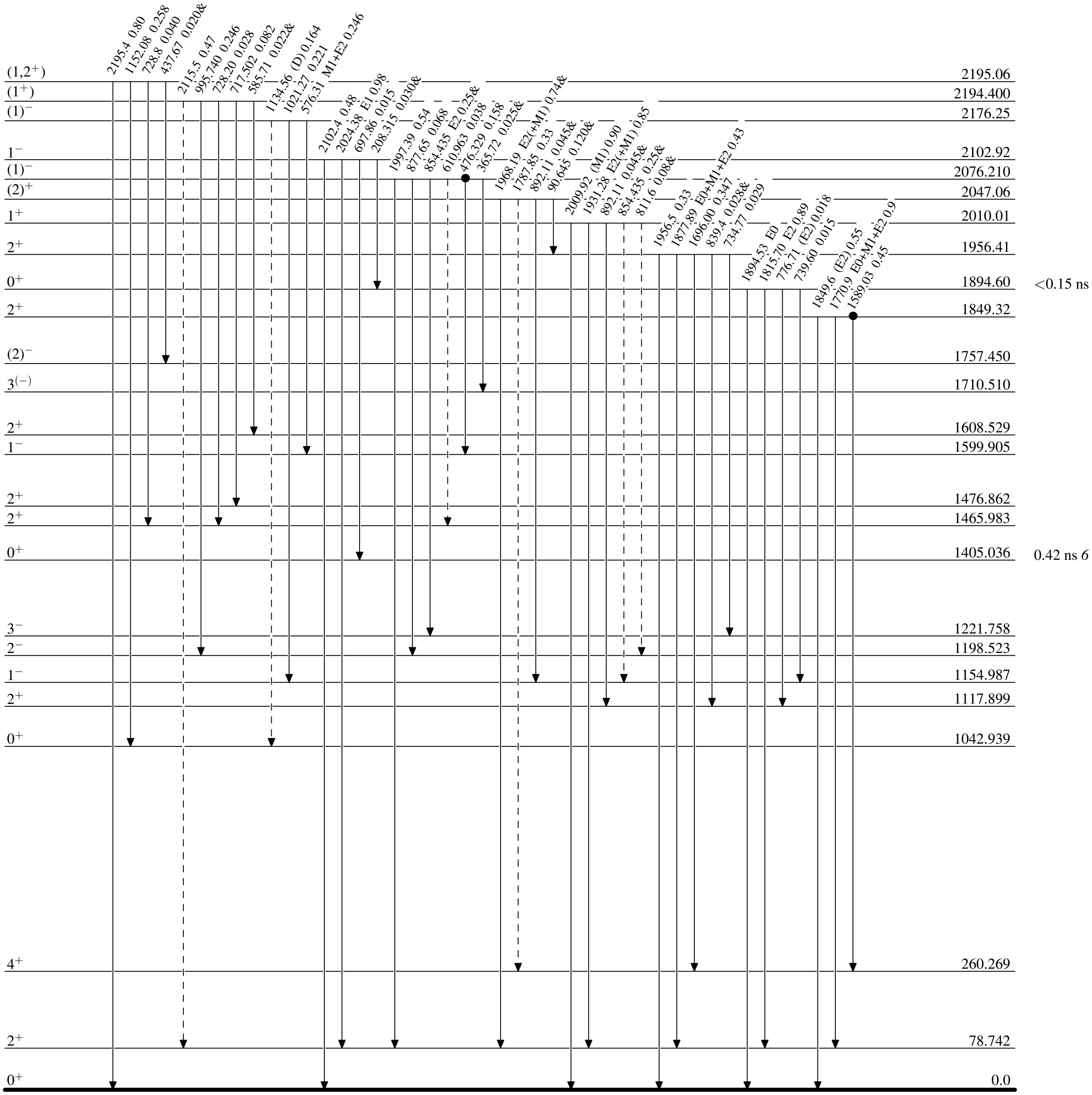
Level Scheme (continued)

Intensities: Iγ per 100 N-captures for secondary transitions. Relative intensities for primary transitions Intensities for primary transitions

& Multiply placed: undivided intensity given

Legend

- I$_\gamma$ < 2%×I$_\gamma^{max}$
- I$_\gamma$ < 10%×I$_\gamma^{max}$
- I$_\gamma$ > 10%×I$_\gamma^{max}$
- γ Decay (Uncertain)
- Coincidence

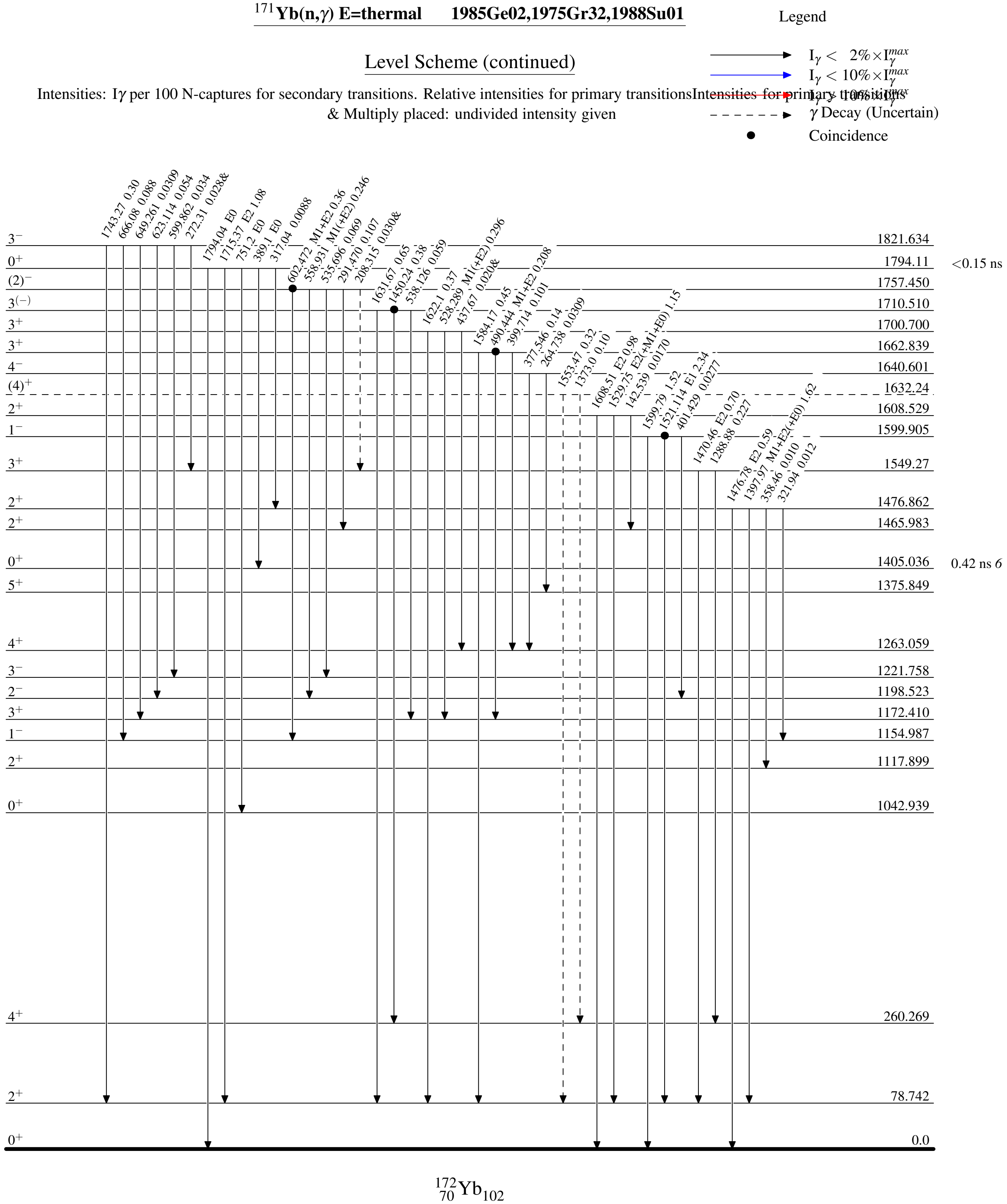


$^{172}_{70}$Yb$_{102}$

^{171}Yb(n,γ) E=thermal 1985Ge02,1975Gr32,1988Su01

Level Scheme (continued)

Intensities: Iγ per 100 N-captures for secondary transitions. Relative intensities for primary transitionsIntensities for primary transitions
& Multiply placed: undivided intensity given



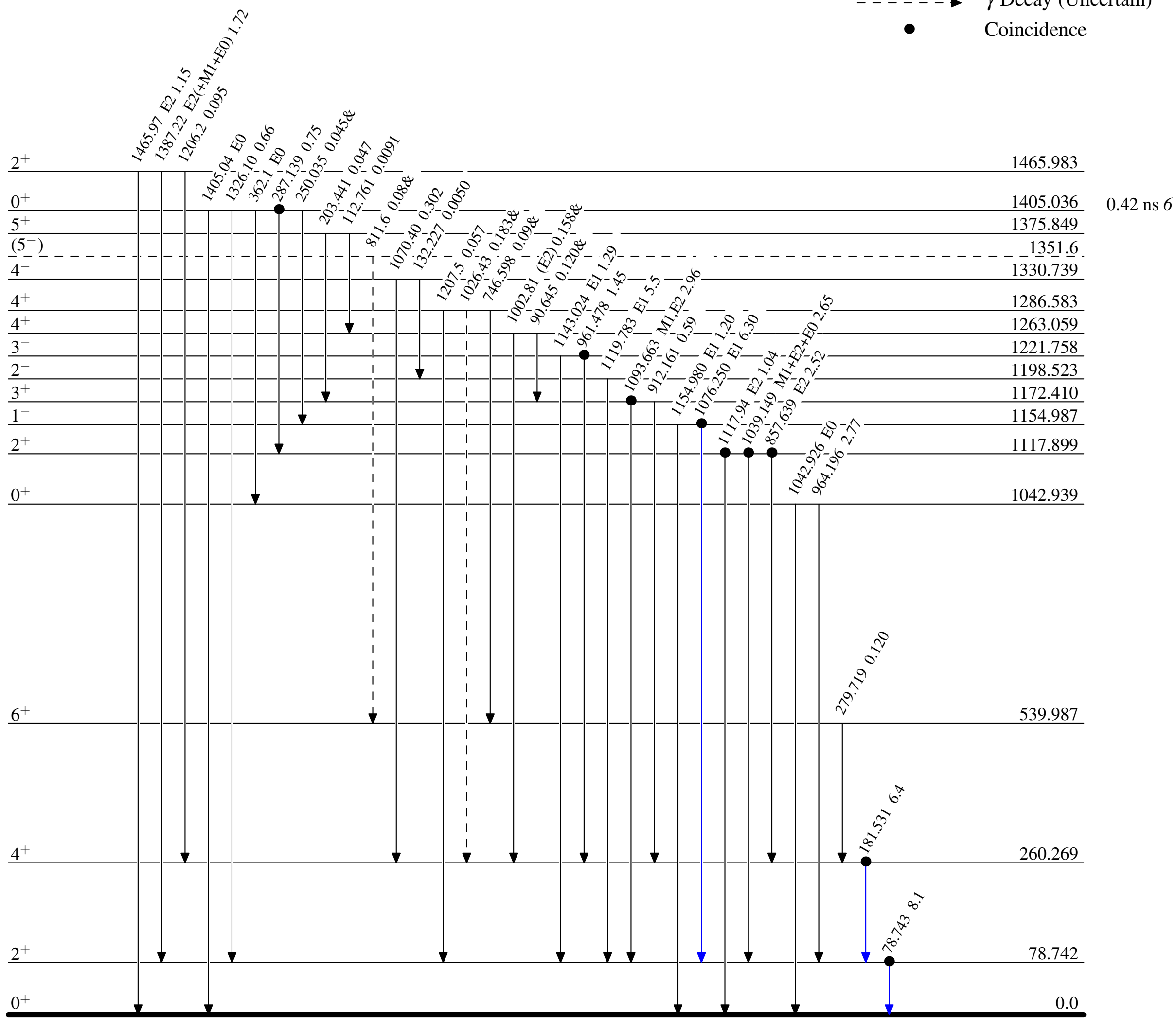
^{171}Yb(n,γ) E=thermal 1985Ge02,1975Gr32,1988Su01

Legend

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

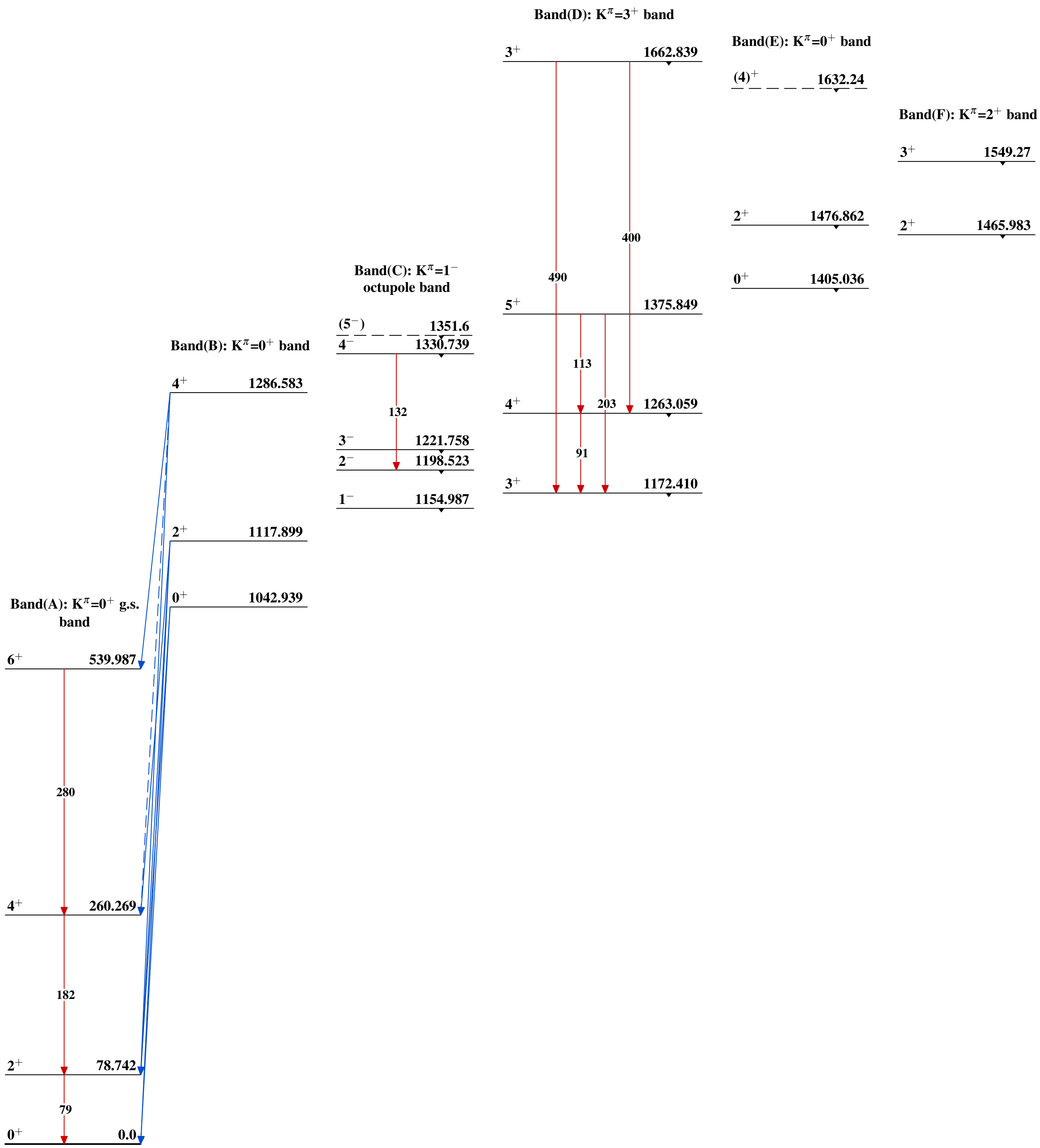
Level Scheme (continued)

Intensities: Iγ per 100 N-captures for secondary transitions. Relative intensities for primary transitionsIntensities for primary transitions
& Multiply placed: undivided intensity given



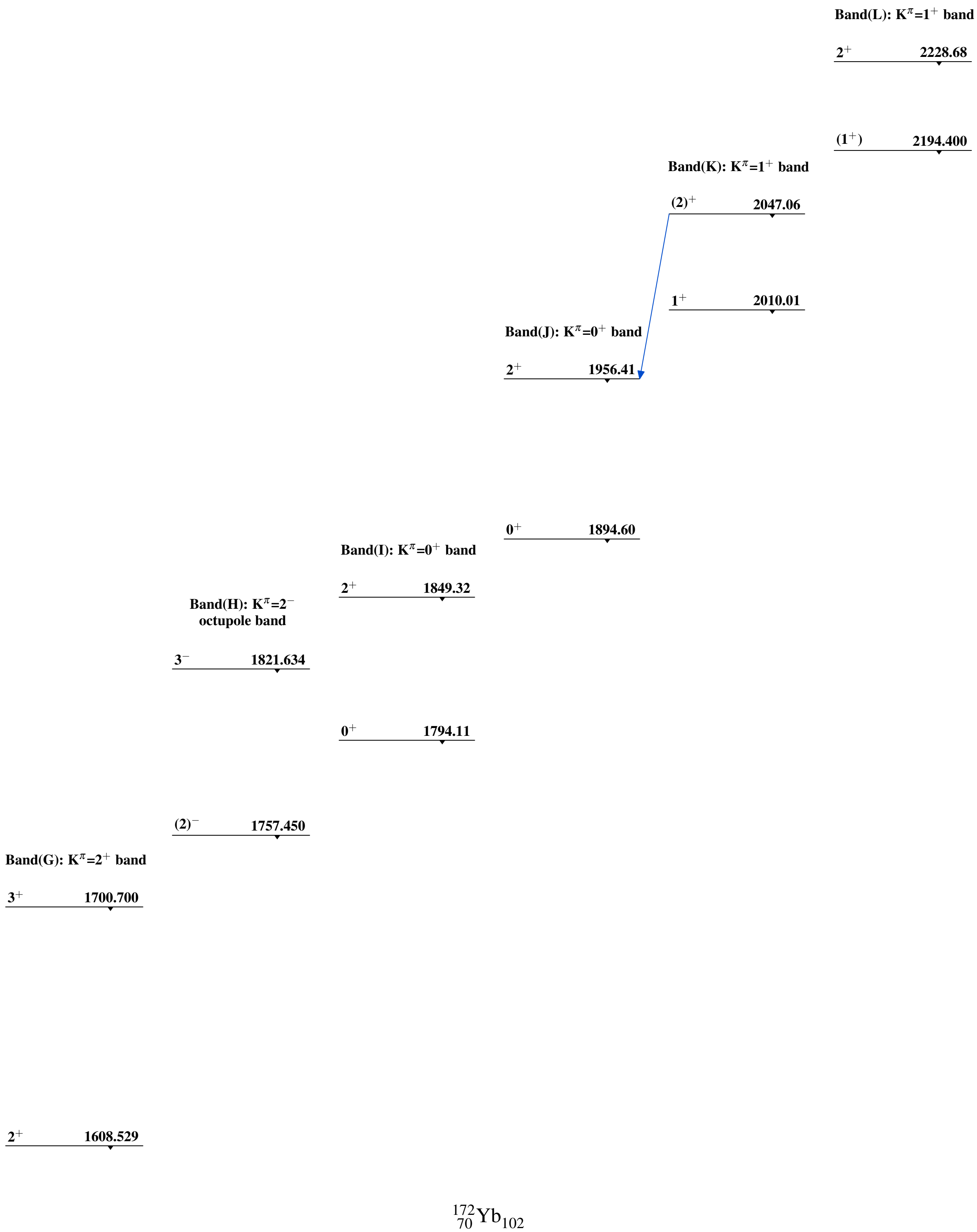
$^{172}_{70}Yb_{102}$

^{171}Yb(n,γ) E=thermal 1985Ge02,1975Gr32,1988Su01



$^{172}_{70}Yb_{102}$

^{171}Yb(n,γ) E=thermal 1985Ge02,1975Gr32,1988Su01 (continued)



^{171}Yb(n,γ) E=thermal 1985Ge02,1975Gr32,1988Su01 (continued)

Band(M): $K^{\pi}=0^{-}$ band

$3^{(-)}$ 1710.510

1^{-} 1599.905

Band(N): $K^{\pi}=4^{-}$ band

4^{-} 1640.601

$^{172}_{70}Yb_{102}$