Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Update	M. S. Basunia		31-Jan-2005

Q(β^-)=471.0 *13*; S(n)=5822.36 *7*; S(p)=8.12×10^3 *5*; Q(α)=597.9 *17* 2012Wa38
Note: Current evaluation has used the following Q record 470.1 135822.35 *7* 8120 40470.1 13 2003Au03.

^{175}Yb Levels

Cross Reference (XREF) Flags

A ^{175}Tm β^- decay
B ^{174}Yb(n,γ) E=thermal
C ^{174}Yb(d,p),^{176}Yb(d,t)
D ^{176}Yb(^{3}He,α)
E ^{176}Yb(^{48}Ca,Xγ),^{176}Yb(^{154}Sm,Xγ)

E(level)[†]	J$^\pi$[#]	$T_{1/2}$	XREF	Comments
0.0[&]	(7/2$^-$)	4.185 d *1*	ABC E	%β^-=100 μ=0.58 *8* μ: nuclear orientation (1989Ra17). $T_{1/2}$: from 1989Ab05. J$^\pi$: log *ft*=4.4 to 396-keV (J$^\pi$=9/2$^-$) level in ^{175}Lu. Populated by 514γ (M3) from 514-keV (J$^\pi$=1/2$^-$) level.
104.5263[&] *19*	(9/2)$^-$		ABCDE	J$^\pi$: L=5 in (d,t). From experimental ratio of cross sections for the (^{3}He,α) and (d,t) reactions (1971Bu01).
231.502[&] *5*	(11/2$^-$)[‡]		BC E	
267.541[a] *4*	(9/2$^+$)		BCDE	J$^\pi$: From comparisons of relative cross sections with theory (1966Bu16).
380.4[&] *7*	(13/2$^-$)[‡]		E	
384.755[a] *6*	(11/2$^+$)		BCDE	J$^\pi$: Member of the 9/2[624] band.
≈460			D	
514.866[b] *4*	1/2$^-$	68.2 ms *3*	AB	$T_{1/2}$: from 1972Br53. J$^\pi$: 514γ (M3) transition to the (7/2$^-$) g.s. state in ^{175}Tm β^- decay and in ^{174}Yb(n,γ). Weakly populated in transfer reactions as expected from Nilsson assignment. Energy sequence of other band members suggests K=1/2, with rotational and decoupling parameters in agreement with systematics of odd Yb-isotopes.
524.1[a] *10*	(13/2)$^+$		CDE	J$^\pi$: L=6 in (d,t) and (^{3}He,α). Member of the 9/2[624] band.
551.3[&] *8*	(15/2$^-$)[‡]		E	
556.084[b] *4*	3/2$^-$		ABC	J$^\pi$: L=1 in (d,t) and (d,p). 556γ to (7/2)$^-$.
602.836[b] *4*	5/2$^-$		ABC	J$^\pi$: L=3 in (d,t) and (d,p). 87.9γ (E2) transition to (1/2$^-$) level.
639.256[c] *4*	(5/2)$^-$		ABC	J$^\pi$: L=3 in (d,t). 639.27γ (M1,E2) transition to (7/2$^-$) g.s. level.
685.1[a] *10*	(15/2$^+$)		E	
698.108[b] *4*	7/2$^-$		ABC	J$^\pi$: L=3 in (d,p). Member of the 1/2[510] band.
729.214[c] *4*	(7/2)$^-$		BCD	J$^\pi$: L=3 in (d,t) and (d,p). Member of the 5/2[512] band.
741.8[&] *10*	(17/2$^-$)[‡]		E	
782.232[b] *7*	(9/2$^-$)		BCD	XREF: D(770). J$^\pi$: Member of the 1/2[510] band in 1966Bu16.
811.423[d] *4*	(3/2)$^-$		ABC	J$^\pi$: L=1 in (d,p). 811γ to the (7/2$^-$) g.s. level.
844.179[c] *6*	(9/2$^-$)		BCD	J$^\pi$: From 5/2[512] rotational band structure.
867.9[a] *15*	(17/2$^+$)		E	
871.691[d] *4*	(5/2)$^-$		ABC	J$^\pi$: L=3 in (d,t) and (d,p). Member of the 3/2[512] band.
920.028[e] *5*	1/2$^-$		ABCD	J$^\pi$: L=1 in (d,t). Excellent agreement of experimental spectroscopic factors with values calculated using the Nilsson model.

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Adopted Levels, Gammas (continued)

^{175}Yb Levels (continued)

E(level)[†]	Jπ[#]	$T_{1/2}$	XREF	Comments
954.6[&] *13*	(19/2⁻)[‡]		E	
957.476[d] *7*	(7/2)⁻		BC	Jπ: L=3 in (d,p). Member of the 3/2[512] band.
983.0[c] *15*	(11/2⁻)		C	
992.261[e] *4*	3/2⁻		ABCD	XREF: D(1000). Jπ: L=1 in (d,t). (n,γ) primary. Member of the 1/2[521] band.
1009.09[f] *6*	(7/2⁺)		B D	XREF: D(1000).
1009.385[e] *5*	(5/2⁻)		ABC	Jπ: L=2,3 in (d,t). 311.3γ (M1) transition to (7/2⁻) in ^{174}Yb(n,γ).
1021.5 *23*			C	
1035.0 *21*			CD	
1062.2 *10*			C	
1067.871[g] *5*	(3/2⁺)		AB	Jπ: 428.6γ (E1) transition to (5/2)⁻ level at 639.258 keV – in ^{174}Yb(n,γ).
1072.9[a] *15*	(19/2⁺)		E	
1097.3 *9*	5/2⁻,7/2⁻		CD	Jπ: L=3 in (d,t).
1117.6 *13*			C	
1121.332[g] *5*	(5/2⁺)		B	Jπ: (n,γ) primary from 1/2⁺.
1156.5[@] *16*			C	
1174.756[e] *5*	7/2⁻		BCD	Jπ: L=3 in (d,t). Member of the 1/2[521] band.
1184.7[&] *14*	(21/2⁻)[‡]		E	
1195.2 *15*			C	
1197.293[g] *10*	(7/2⁺)		B	
1204.2 *13*			CD	
1210.3[@] *14*			C	
1222.9[@] *14*			C	
1262.0 *15*			CD	
1290.0 *12*			C	
1298.2[a] *18*	(21/2⁺)		E	
1308.33 *19*			A CD	
1346.4[f] *11*	(13/2)⁺		CD	Jπ: L=6 in (d,t) and (^{3}He,α). Member of the 7/2[633] band.
1356.490[h] *6*	(1/2⁺)		BC	Jπ: L=0-2 for 1356, 1368 keV doublet in (d,p). Base level of the band 1/2[651] with expected values of a=4-5 (1971Bu16) and A≈10keV.
1368.109[h] *5*	(5/2⁺)		BC	Jπ: L=0-2 for 1356, 1368 keV doublet in (d,p). The fit suggested dominant l=2. Member of the 1/2[651] band.
1424.9 *8*	7/2⁺,9/2⁺		CD	Jπ: L=4 in (d,p).
1436.3[&] *16*	(23/2⁻)[‡]		E	
1461.1 *9*	3/2⁺,5/2⁺		C	Jπ: L=2 in (d,p).
1468.869[h] *5*	(3/2⁺)		AB	Jπ: (n,γ) primary from 1/2⁺. Explained by the single-particle configuration 1/2[651], based on the probability of the beta and γ-ray transitions in ^{175}Tm β⁻ decay in 1969Fu03.
1497.30[i] *4*	(3/2⁺)	<0.1 ns	ABCD	Jπ: The small log *ft* value of about 5 indicated unhindered beta transition and of J^π 1/2⁺ or 3/2⁺. From de-excitation of the state a spin 3/2 is tentatively assigned in ^{175}Tm β⁻ decay (1969Fu03). $T_{1/2}$: from ^{175}Tm β⁻ decay in 1969Fu03.
1517.1 *13*			C	
1536.0 *14*			C	
1547.8[a] *18*	(23/2⁺)		E	
1549.6 *20*	1/2,3/2,5/2⁺		BC	Jπ: (n,γ) primary from 1/2⁺.
1566.6 *19*			C	
1581.4 *26*			C	
1604.2 *14*			C	
1620.5 *15*			A CD	
1627.481 *20*	1/2⁻,3/2⁻		BC	Jπ: L=1 in (d,t).
1636.4 *14*			C	

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Adopted Levels, Gammas (continued)

^{175}Yb Levels (continued)

E(level)[†]	Jπ[#]	XREF	Comments
1642.2 *15*		C	
1647.8 *15*	1/2,3/2,5/2+	B	Jπ: (n,γ) primary from 1/2+.
1650.4 *14*		C	
1660.6 *20*	1/2,3/2,5/2+	B	Jπ: (n,γ) primary from 1/2+.
1671.5 *15*		C	
1682.6 *4*	1/2,3/2,5/2+	AB	Jπ: (n,γ) primary from 1/2+.
1685.8 *10*	1/2−,3/2−	C	Jπ: L=1 in (d,t).
1689.56 *3*		B	
1690.90 *24*	1/2,3/2,5/2+	AB D	Jπ: (n,γ) primary from 1/2+.
1703.4[&] *17*	(25/2−)[‡]	E	
1743.4 *12*		CD	
1749.7 *11*		C	
1754.3 *16*		C	
1775.5 *17*	5/2−,7/2−	CD	Jπ: L=3 in (d,t).
1793.41 *14*		A	
1802.2 *18*		C	
1808.7 *18*		Cd	
1812.9[a] *20*	(25/2+)	E	
1815.2 *16*		Cd	
1822.9?[@] *16*		C	
1833.9 *16*		CD	
1842.0 *12*		C	
1844.3 *20*	1/2,3/2,5/2+	B	Jπ: (n,γ) primary from 1/2+.
1851.8 *16*		C	
1861.1 *15*		CD	
1864.84 *21*		A	
1870.8 *12*		C	
1876.5 *15*		C	
1881.6 *15*		C	
1891.94 *18*		A	
1893.09 *5*	(1/2−,3/2−)	B	Jπ: (E1) (n,γ) primary from 1/2+.
1902.4 *12*		CD	
1911.6 *15*		C	
1918.9 *14*		C	
1932.5 *17*		C	
1937.48 *3*	(1/2−,3/2−)	B	Jπ: (E1) (n,γ) primary from 1/2+.
1948.9 *15*		CD	XREF: D(1939).
1960.9 *12*		C	
1968.2 *16*	1/2,3/2,5/2+	BC	Jπ: (n,γ) primary from 1/2+.
1980.3 *16*	1/2,3/2,5/2+	BCD	XREF: D(1977). Jπ: (n,γ) primary from 1/2+.
1990.5[&] *19*	(27/2−)[‡]	C E	
1998.7 *15*	1/2,3/2,5/2+	BCD	XREF: D(2006). Jπ: (n,γ) primary from 1/2+.
2015.11 *20*		B	
2023.8 *10*		C	
2039.5 *20*	1/2,3/2,5/2	BC	Jπ: (n,γ) primary from 1/2+.
2046.2 *25*	1/2,3/2,5/2	B	Jπ: (n,γ) primary from 1/2+.
2053.9 *11*	(11/2+,13/2+)	CD	XREF: D(2047). Jπ: L=(6) in (^{3}He,α).
2065.1 *20*	1/2,3/2,5/2	B	Jπ: (n,γ) primary from 1/2+.
2081.98 *25*		AB	
2093.6 *4*		A C	
2107.80 *17*	(1/2−,3/2−)	BC	Jπ: (E1) (n,γ) primary from 1/2+.
2108.2[a] *20*	(27/2+)	E	

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Adopted Levels, Gammas (continued)

^{175}Yb Levels (continued)

E(level)[†]	Jπ[#]	XREF	Comments
2114.2 *5*		A	
2119.4 *15*		C	
2131.7 *12*		C	
2139.9 *12*		A	
2142.6 *10*		C	
2161.2 *16*	1/2,3/2,5/2	BC	Jπ: (n,γ) primary from 1/2+.
2181.7 *9*		C	
2190.2 *15*	(1/2−,3/2−)	B	Jπ: (E1) (n,γ) primary from 1/2+.
2195.8 *11*		C	
2209.1 *17*		C	
2215.8 *14*		C	
2220.5 *17*		C	
2234.2 *11*	3/2+,5/2+	C	Jπ: L=2 in (d,p).
2251.4 *10*		C	
2279.5 *12*		C	
2284.5 *12*	5/2−,7/2−	C	Jπ: L=3 in (d,p).
2292.4[&] *20*	(29/2−)[‡]	E	
2300.7 *10*	3/2+,5/2+	C	Jπ: L=2 in (d,t).
2317.6 *9*		C	
2331.2 *12*	3/2+,5/2+	C	Jπ: L=2 in (d,t).
2349.1 *12*		C	
2366.5 *15*		C	
2385.9 *11*		C	
2398.9 *10*	3/2+,5/2+	C	Jπ: L=2 in (d,t).
2407.7[a] *23*	(29/2+)	E	
2415.9 *16*		C	
2431.1 *15*		C	
2438.4 *12*	3/2+,5/2+	C	Jπ: L=2 in (d,t).
2450.9 *16*		C	
2458.4 *15*		C	
2471.0 *10*		C	
2491.4 *14*	3/2+,5/2+	C	Jπ: L=2 in (d,t).
2506.7 *23*		C	
2515.0 *13*		C	
2523.5 *18*		C	
2533.5 *12*		C	
2541.6 *11*	3/2+,5/2+	C	Jπ: L=2 in (d,t).
2552.1 *13*		C	
2571.6 *16*		C	
2583.3 *16*		C	
2599.8 *14*		C	
2612.1[&] *22*	(31/2−)[‡]	C E	
2630.1 *11*		C	
2646.4 *22*		C	
2662.2 *14*		C	
2677.7 *15*		C	
2693.2 *14*		C	
2712.3 *13*		C	
2737.1 *14*		C	
2947.0[&] *22*	(33/2−)[‡]	E	
3296.7[&] *24*	(35/2−)[‡]	E	
3659.7[&] *25*	(37/2−)[‡]	E	
4035[&] *3*	(39/2−)[‡]	E	
4425[&] *3*	(41/2−)[‡]	E	

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Adopted Levels, Gammas (continued)

^{175}Yb Levels (continued)

† Deduced by evaluator from a least-squares fit to adopted γ-ray energies. Levels without γ lines taken from ^{174}Yb(n,γ) or ^{174}Yb(d,p) or ^{176}Yb(d,t) dataset in priority order respectively, when present.

‡ From Authors′ stretched E2 transitions in ^{176}Yb(^{48}Ca,Xγ), ^{176}Yb(^{154}Sm,Xγ).

J^{π} assignments are based on rotational structure, direct population by primary γ-ray in (n,γ), on L-transfer values, and on the agreement between calculated and experimental cross sections in particle-transfer reactions. Specific arguments are given with individual levels. Nilsson orbital assignments are based also on energy systematics of these orbitals in other odd-A Yb isotopes.

@ May contain contribution from contaminant.

& Band(A): 7/2(514) band.

a Band(B): 9/2(624) band: Members of this band above the (13/2$^+$) state are added by evaluator from ^{177}Yb level scheme in ^{176}Yb(^{48}Ca,Xγ), ^{176}Yb(^{154}Sm,Xγ). A comparison with (d,p), (d,t), (^{3}He,α) datasets supports these levels as the higher member of this band. In 2003Ko33 a difference of the ^{177}Yb level scheme (1999As05,1997Le11) with respective datasets is noted and not adopted.

b Band(C): 1/2(510) band.

c Band(D): 5/2(512) band.

d Band(E): 3/2(512) band.

e Band(F): 1/2(521) band.

f Band(G): 7/2(633)? band.

g Band(H): K$^{\pi}$=(3/2$^+$) band.

h Band(I): 1/2(651)? band.

i Band(J): K$^{\pi}$=(3/2$^+$) band.

Adopted Levels, Gammas (continued)

γ(^{175}Yb)

E_i(level)	J_i^π	E_γ[†][c]	I_γ[†]	E_f	J_f^π	Mult.[b]	α[d]	Comments
104.5263	(9/2)$^-$	104.5272[‡] *20*	100	0.0	(7/2$^-$)	(E2)	2.75	Mult.: E2 character is consistent with the small (g_K-g_R) value for this band, as deduced from 127γ and 231γ.
231.502	(11/2$^-$)	126.977 *6*	46 *10*	104.5263	(9/2)$^-$			
		231.497 *13*	100 *13*	0.0	(7/2$^-$)			
267.541	(9/2$^+$)	163.017 *4*	100 *14*	104.5263	(9/2)$^-$			
		267.532 *7*	57 *5*	0.0	(7/2$^-$)			
380.4	(13/2$^-$)	149.0[#]		231.502	(11/2$^-$)			
		276.4[#]		104.5263	(9/2)$^-$			
384.755	(11/2$^+$)	117.214 *6*	100 *19*	267.541	(9/2$^+$)			
		280.228 *7*	67 *24*	104.5263	(9/2)$^-$			
514.866	1/2$^-$	514.862[‡] *11*	100	0.0	(7/2$^-$)	(M3)	0.318	B(M3)(W.u.)=0.0789 *7*
524.1	(13/2)$^+$	256.6[@]	100	267.541	(9/2$^+$)			
551.3	(15/2$^-$)	171.0[#]		380.4	(13/2$^-$)			
		319.3[#]		231.502	(11/2$^-$)			
556.084	3/2$^-$	41.217[‡] *4*	100 *29*	514.866	1/2$^-$			
		556.08[‡] *5*	6.0 *4*	0.0	(7/2$^-$)			
602.836	5/2$^-$	46.75[‡] *3*	94[a] *29*	556.084	3/2$^-$	(M1+E2)	6.4 *11*	Mult.: from transition-intensity balance in ^{175}Tm β$^-$ decay.
		87.9697[‡] *20*	100[a] *18*	514.866	1/2$^-$	(E2)	5.36	
		498.325 *25*	28 *3*	104.5263	(9/2)$^-$			
		602.74[‡] *20*	14.1[a] *18*	0.0	(7/2$^-$)			
639.256	(5/2)$^-$	534.721[‡] *21*	32[a] *2*	104.5263	(9/2)$^-$			
		639.272[‡] *20*	100[a] *5*	0.0	(7/2$^-$)	(M1+E2)		
685.1	(15/2$^+$)	300.3[@]	100	384.755	(11/2$^+$)			
698.108	7/2$^-$	95.2716[‡] *25*	100 *23*	602.836	5/2$^-$			
		142.0236 *23*	16 *3*	556.084	3/2$^-$			
		593.582 *7*	5.2 *11*	104.5263	(9/2)$^-$			
		698.109 *7*	4.3 *15*	0.0	(7/2$^-$)			
729.214	(7/2)$^-$	89.9573 *23*	52 *11*	639.256	(5/2)$^-$			
		126.377 *4*	1.7 *6*	602.836	5/2$^-$			
		497.712 *9*	17 *4*	231.502	(11/2$^-$)			
		624.687 *7*	20.7 *21*	104.5263	(9/2)$^-$			
		729.213 *7*	100 *10*	0.0	(7/2$^-$)			
741.8	(17/2$^-$)	190.0[#]		551.3	(15/2$^-$)			
		361.8[#]		380.4	(13/2$^-$)			
782.232	(9/2$^-$)	179.396 *6*	100	602.836	5/2$^-$			
811.423	(3/2)$^-$	172.166[‡] *4*	12.8 *17*	639.256	(5/2)$^-$			I_γ: 5.1 *13* in ^{175}Tm β$^-$ decay.

Adopted Levels, Gammas (continued)

γ(^{175}Yb) (continued)

E_i(level)	J_i^π	E_γ[†][c]	I_γ[†]	E_f	J_f^π	Mult.[b]	δ	α[d]	Comments
811.423	(3/2)$^-$	208.587 *4*	0.98 *12*	602.836	5/2$^-$				
		255.338 *4*	3.7 *3*	556.084	3/2$^-$				
		296.80 *5*	0.42 *8*	514.866	1/2$^-$				
		811.37[‡] *7*	100 *12*	0.0	(7/2$^-$)				
844.179	(9/2$^-$)	114.966 *8*	50 *12*	729.214	(7/2)$^-$				
		204.923 *8*	15 *6*	639.256	(5/2)$^-$				
		612.677 *12*	100 *35*	231.502	(11/2$^-$)				
867.9	(17/2$^+$)	343.8[@]	100	524.1	(13/2)$^+$				
871.691	(5/2)$^-$	142.478 *3*	8.9 *15*	729.214	(7/2)$^-$				
		173.582 *4*	5.0 *7*	698.108	7/2$^-$				
		232.435 *3*	10.4 *10*	639.256	(5/2)$^-$				
		315.606 *4*	1.2 *3*	556.084	3/2$^-$				
		356.823 *4*	3.6 *4*	514.866	1/2$^-$				
		767.12[‡] *5*	63[a] *6*	104.5263	(9/2)$^-$				
		871.67[‡] *8*	100[a] *6*	0.0	(7/2$^-$)				
920.028	1/2$^-$	317.190 *6*	0.69 *12*	602.836	5/2$^-$				
		363.956[‡] *9*	100 *8*	556.084	3/2$^-$	(M1+E2)	<1.7	0.08 *3*	
		405.147[‡] *17*	5.2 *5*	514.866	1/2$^-$				I_γ: 2.1 *9* in ^{175}Tm β^- decay.
954.6	(19/2$^-$)	403.3[#]	100	551.3	(15/2$^-$)				
957.476	(7/2)$^-$	146.053 *16*	3.1 *16*	811.423	(3/2)$^-$				
		228.263 *15*	8.1 *16*	729.214	(7/2)$^-$				
		259.368 *16*	4.4 *9*	698.108	7/2$^-$				
		354.640 *16*	11.6 *22*	602.836	5/2$^-$				
		725.974 *18*	31 *9*	231.502	(11/2$^-$)				
		852.949 *17*	100 *22*	104.5263	(9/2)$^-$				
		957.475 *17*	34 *13*	0.0	(7/2$^-$)				
992.261	3/2$^-$	72.234 *6*	1.2 *4*	920.028	1/2$^-$				
		120.570 *5*	0.48 *10*	871.691	(5/2)$^-$				
		180.838 *5*	0.76 *10*	811.423	(3/2)$^-$				
		389.425 *5*	4.1 *3*	602.836	5/2$^-$				
		436.159[‡] *20*	66 *6*	556.084	3/2$^-$	(M1+E2)	<2	0.046 *17*	I_γ: 84 *10* in ^{175}Tm β^- decay.
		477.400[‡] *13*	100 *8*	514.866	1/2$^-$	(M1+E2)	<4.2		
1009.09	(7/2$^+$)	741.56 *10*	84 *15*	267.541	(9/2$^+$)				
		904.57 *10*	47 *11*	104.5263	(9/2)$^-$				
		1009.10 *10*	100 *24*	0.0	(7/2$^-$)				
1009.385	(5/2$^-$)	89.359 *8*	1.3 *5*	920.028	1/2$^-$				
		197.962 *7*	14	811.423	(3/2)$^-$				I_γ: from ^{175}Tm β^- decay.
		311.270[‡] *7*	100 *8*	698.108	7/2$^-$	(M1)			
		406.549 *6*	45 *3*	602.836	5/2$^-$				

$^{175}_{70}Yb_{105}$-7

Adopted Levels, Gammas (continued)

γ(^{175}Yb) (continued)

E_i(level)	J_i^π	E_γ[†][c]	I_γ[†]	E_f	J_f^π	Comments
1009.385	(5/2⁻)	453.300 *6*	11.6 *17*	556.084	3/2⁻	
1067.871	(3/2⁺)	75.1[e] *4*		992.261	3/2⁻	E_γ: From ^{175}Tm β^- decay.
		146.5[e] *3*		920.028	1/2⁻	E_γ: From ^{175}Tm β^- decay.
		196.15 *5*	0.28 *8*	871.691	(5/2)⁻	
		428.615 *8*	100 *8*	639.256	(5/2)⁻	
		465.035 *8*	9.0 *8*	602.836	5/2⁻	
		511.786 *8*	28 *3*	556.084	3/2⁻	
		552.99 *3*	15.0 *12*	514.866	1/2⁻	
		1065[e] *3*		0.0	(7/2⁻)	E_γ: From ^{175}Tm β^- decay.
1072.9	(19/2⁺)	387.8[@]	100	685.1	(15/2⁺)	
1121.332	(5/2⁺)	111.947 *8*	0.9 *3*	1009.385	(5/2⁻)	
		309.909 *8*	1.2 *4*	811.423	(3/2)⁻	
		392.119 *7*	43 *3*	729.214	(7/2)⁻	
		423.223 *7*	19.1 *13*	698.108	7/2⁻	
		482.076 *7*	100 *8*	639.256	(5/2)⁻	
		518.495 *7*	15.3 *20*	602.836	5/2⁻	
		565.246 *7*	16.6 *13*	556.084	3/2⁻	
1174.756	7/2⁻	165.371 *8*	5.9 *13*	1009.385	(5/2⁻)	
		182.495 *6*	18.3 *23*	992.261	3/2⁻	
		476.647 *7*	32 *6*	698.108	7/2⁻	
		571.920 *7*	100 *8*	602.836	5/2⁻	
1184.7	(21/2⁻)	442.9[#]	100	741.8	(17/2⁻)	
1197.293	(7/2⁺)	353.115 *18*	62 *7*	844.179	(9/2⁻)	
		468.080 *18*	100 *13*	729.214	(7/2)⁻	
		558.037 *18*	40 *14*	639.256	(5/2)⁻	
1298.2	(21/2⁺)	430.3[@]	100	867.9	(17/2⁺)	
1308.33		669.6 *3*	45 *14*	639.256	(5/2)⁻	
		1308.9 *3*	100 *10*	0.0	(7/2⁻)	
1356.490	(1/2⁺)	235.159 *11*	1.0 *2*	1121.332	(5/2⁺)	
		288.619 *9*	11.7 *11*	1067.871	(3/2⁺)	
		436.464 *10*	27 *4*	920.028	1/2⁻	
		800.404 *9*	83 *8*	556.084	3/2⁻	
		841.622 *9*	100 *9*	514.866	1/2⁻	
1368.109	(5/2⁺)	170.815 *19*	1.3 *5*	1197.293	(7/2⁺)	
		193.353 *7*	12.2 *15*	1174.756	7/2⁻	
		246.777 *10*	10.9 *10*	1121.332	(5/2⁺)	
		300.237 *10*	4.2 *11*	1067.871	(3/2⁺)	
		358.724 *10*	5.2 *9*	1009.385	(5/2⁻)	
		375.848 *8*	8.8 *12*	992.261	3/2⁻	
		496.418 *9*	22 *6*	871.691	(5/2)⁻	

$^{175}_{70}Yb_{105}$-8

Adopted Levels, Gammas (continued)

γ(^{175}Yb) (continued)

E_i(level)	J_i^π	E_γ[†c]	I_γ[†]	E_f	J_f^π	Comments
1368.109	(5/2$^+$)	556.685 *9*	7.6 *19*	811.423	(3/2)$^-$	
		812.022 *8*	100 *30*	556.084	3/2$^-$	
1436.3	(23/2$^-$)	481.7[#]	100	954.6	(19/2$^-$)	
1468.869	(3/2$^+$)	100.761 *4*	21 *5*	1368.109	(5/2$^+$)	
		112.379 *8*	3.4 *8*	1356.490	(1/2$^+$)	
		162.5 *4*	16 *4*	1308.33		E$_\gamma$,I$_\gamma$: from ^{175}Tm β^- decay. I$_\gamma$: with respect to Iγ of 953.96γ in ^{175}Tm β^- decay.
		400.998 *10*	8.2 *21*	1067.871	(3/2$^+$)	
		459.484 *10*	14 *3*	1009.385	(5/2$^-$)	
		476.608 *8*	16 *3*	992.261	3/2$^-$	
		548.842 *10*	20.7 *24*	920.028	1/2$^-$	
		657.30[‡] *7*	33 *3*	811.423	(3/2)$^-$	
		866.032 *9*	18 *6*	602.836	5/2$^-$	
		953.96[‡] *17*	100 *21*	514.866	1/2$^-$	
1497.30	(3/2$^+$)	487.81[‡] *9*	10.1 *16*	1009.385	(5/2$^-$)	
		505.06 *4*	15 *3*	992.261	3/2$^-$	
		577.2[‡] *3*	14 *3*	920.028	1/2$^-$	
		625.8[‡] *3*	1.8 *3*	871.691	(5/2)$^-$	E$_\gamma$,I$_\gamma$: From ^{175}Tm β^- decay. Iγ: in comparison to 941.23γ Iγ.
		685 *3*	0.8	811.423	(3/2)$^-$	E$_\gamma$,I$_\gamma$: From ^{175}Tm β^- decay. Iγ: in comparison to 941.23γ Iγ.
		858.1[‡] *6*	35 *6*	639.256	(5/2)$^-$	
		894.5[‡] *4*	51 *7*	602.836	5/2$^-$	
		941.08[‡] *13*	63 *8*	556.084	3/2$^-$	
		982.4[‡] *5*	100 *12*	514.866	1/2$^-$	I$_\gamma$: Iγ of 982.45γ not the highest in ^{175}Tm β^- decay, probably because of the doublet in 1970Ja20.
1547.8	(23/2$^+$)	474.9[@]	100	1072.9	(19/2$^+$)	
1620.5		1064.4 *21*	<75	556.084	3/2$^-$	
		1105.6 *21*	100	514.866	1/2$^-$	
1627.481	1/2$^-$,3/2$^-$	618.09 *4*	16.2 *23*	1009.385	(5/2$^-$)	
		635.22 *4*	65 *6*	992.261	3/2$^-$	
		707.45 *4*	100 *9*	920.028	1/2$^-$	
		988.22 *4*	72 *13*	639.256	(5/2)$^-$	
1682.6	1/2,3/2,5/2$^+$	1126.5[&] *4*	100[&] *25*	556.084	3/2$^-$	
		1168[&] *1*	37[&] *13*	514.866	1/2$^-$	
1689.56		680.17 *5*	100 *14*	1009.385	(5/2$^-$)	
		697.29 *5*	100 *18*	992.261	3/2$^-$	
		960.34 *5*	45 *18*	729.214	(7/2)$^-$	
1690.90	1/2,3/2,5/2$^+$	1090 *3*	23	602.836	5/2$^-$	
		1134.3 *4*	68 *14*	556.084	3/2$^-$	

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Adopted Levels, Gammas (continued)

γ(^{175}Yb) (continued)

E_i(level)	J_i^π	E_γ[†][c]	I_γ[†]	E_f	J_f^π
1690.90	1/2,3/2,5/2$^+$	1176.3 *3*	100 *14*	514.866	1/2$^-$
1703.4	(25/2$^-$)	518.7[#]	100	1184.7	(21/2$^-$)
1793.41		295.7 *6*	42 *7*	1497.30	(3/2$^+$)
		325.2 *6*	37 *8*	1468.869	(3/2$^+$)
		800.0 *7*	23 *7*	992.261	3/2$^-$
		921.5 *3*	62 *12*	871.691	(5/2)$^-$
		982.1 *2*	100 *33*	811.423	(3/2)$^-$
		1154.2 *4*	58 *18*	639.256	(5/2)$^-$
		1237.0 *5*	33 *17*	556.084	3/2$^-$
		1279.2 *6*	8 *3*	514.866	1/2$^-$
1812.9	(25/2$^+$)	514.7[@]	100	1298.2	(21/2$^+$)
1864.84		948.0[&] *14*	90[&] *52*	920.028	1/2$^-$
		993[&] *3*	90[&] *52*	871.691	(5/2)$^-$
		1053.4[&] *4*	34[&] *10*	811.423	(3/2)$^-$
		1261.9[&] *3*	55[&] *10*	602.836	5/2$^-$
		1308.7[&] *5*	100[&] *10*	556.084	3/2$^-$
		1349.9[&] *7*	28[&] *7*	514.866	1/2$^-$
1891.94		394[&] *1*	100[&] *30*	1497.30	(3/2$^+$)
		423.5[&] *3*	11[&] *2*	1468.869	(3/2$^+$)
		1252.5[&] *5*	5.2[&] *9*	639.256	(5/2)$^-$
		1288.5[&] *10*	0.9[&]	602.836	5/2$^-$
		1335.6[&] *5*	13.9[&] *17*	556.084	3/2$^-$
		1376.9[&] *3*	91[&] *7*	514.866	1/2$^-$
1893.09	(1/2$^-$,3/2$^-$)	825.22 *7*	37 *3*	1067.871	(3/2$^+$)
		1378.22 *7*	100 *26*	514.866	1/2$^-$
1937.48	(1/2$^-$,3/2$^-$)	247.912 *15*	4.5 *6*	1689.56	
		309.93 *10*	2.1 *7*	1627.481	1/2$^-$,3/2$^-$
		569.42 *11*	4.7 *12*	1368.109	(5/2$^+$)
		740.30 *20*	29 *7*	1197.293	(7/2$^+$)
		816.23 *10*	100 *9*	1121.332	(5/2$^+$)
		869.68 *12*	76 *9*	1067.871	(3/2$^+$)
1937.48	(1/2$^-$,3/2$^-$)	945.04 *17*	52 *9*	992.261	3/2$^-$
1990.5	(27/2$^-$)	554.2[#]	100	1436.3	(23/2$^-$)
2015.11		947.2 *3*	83 *20*	1067.871	(3/2$^+$)
		1006.2 *3*	100 *29*	1009.09	(7/2$^+$)
		1022.4 *5*	66 *23*	992.261	3/2$^-$
2081.98		1272.9[&] *5*	8[&] *5*	811.423	(3/2)$^-$
		1525.1[&] *4*	100[&] *11*	556.084	3/2$^-$
		1566.4[&] *4*	5.4[&] *12*	514.866	1/2$^-$
2093.6		1454.4[&] *6*	100[&] *22*	639.256	(5/2)$^-$
		1537.5[&] *6*	78[&] *22*	556.084	3/2$^-$
		1578.7[&] *6*	33[&] *22*	514.866	1/2$^-$
2107.80	(1/2$^-$,3/2$^-$)	1115.5 *3*	100 *20*	992.261	3/2$^-$
		1187.8 *2*	47 *14*	920.028	1/2$^-$
		1295 *2*	41 *14*	811.423	(3/2)$^-$
2108.2	(27/2$^+$)	560.4[@]	100	1547.8	(23/2$^+$)
2114.2		1511[&] *2*	67[&] *17*	602.836	5/2$^-$
		1558.1[&] *9*	100[&] *25*	556.084	3/2$^-$
		1599.3[&] *6*	99[&] *16*	514.866	1/2$^-$
2139.9		1537.5[&] *15*	100[&] *29*	602.836	5/2$^-$
		1583[&] *2*	71[&] *29*	556.084	3/2$^-$
		1625[&] *3*	57[&] *29*	514.866	1/2$^-$
2190.2	(1/2$^-$,3/2$^-$)	1124 *2*	100 *33*	1067.871	(3/2$^+$)
		1377 *2*	50 *17*	811.423	(3/2)$^-$
2292.4	(29/2$^-$)	589.0[#]	100	1703.4	(25/2$^-$)
2407.7	(29/2$^+$)	594.8[@]	100	1812.9	(25/2$^+$)
2612.1	(31/2$^-$)	621.6[#]	100	1990.5	(27/2$^-$)
2947.0	(33/2$^-$)	654.6[#]	100	2292.4	(29/2$^-$)
3296.7	(35/2$^-$)	684.6[#]	100	2612.1	(31/2$^-$)
3659.7	(37/2$^-$)	712.7[#]	100	2947.0	(33/2$^-$)
4035	(39/2$^-$)	738.0[#]	100	3296.7	(35/2$^-$)
4425	(41/2$^-$)	765.6[#]	100	3659.7	(37/2$^-$)

† From ^{174}Yb(n,γ), except as noted.
‡ Weighted average of data from ^{175}Tm β^- decay and ^{174}Yb(n,γ).
# From ^{176}Yb(^{48}Ca,Xγ), ^{176}Yb(^{154}Sm,Xγ).
@ From ^{177}Yb level scheme in ^{176}Yb(^{48}Ca,Xγ), ^{176}Yb(^{154}Sm,Xγ).

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Adopted Levels, Gammas (continued)

$\gamma(^{175}Yb)$ (continued)

& From ^{175}Tm β^- decay.
[a] Weighted average of data from ^{175}Tm β^- decay and $^{174}Yb(n,\gamma)$.
[b] From conversion electron data in $^{174}Yb(n,\gamma)$ E=thermal (1967Bo19), except as noted.
[c] From 1997Le11, except as noted.
[d] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
[e] Placement of transition in the level scheme is uncertain.

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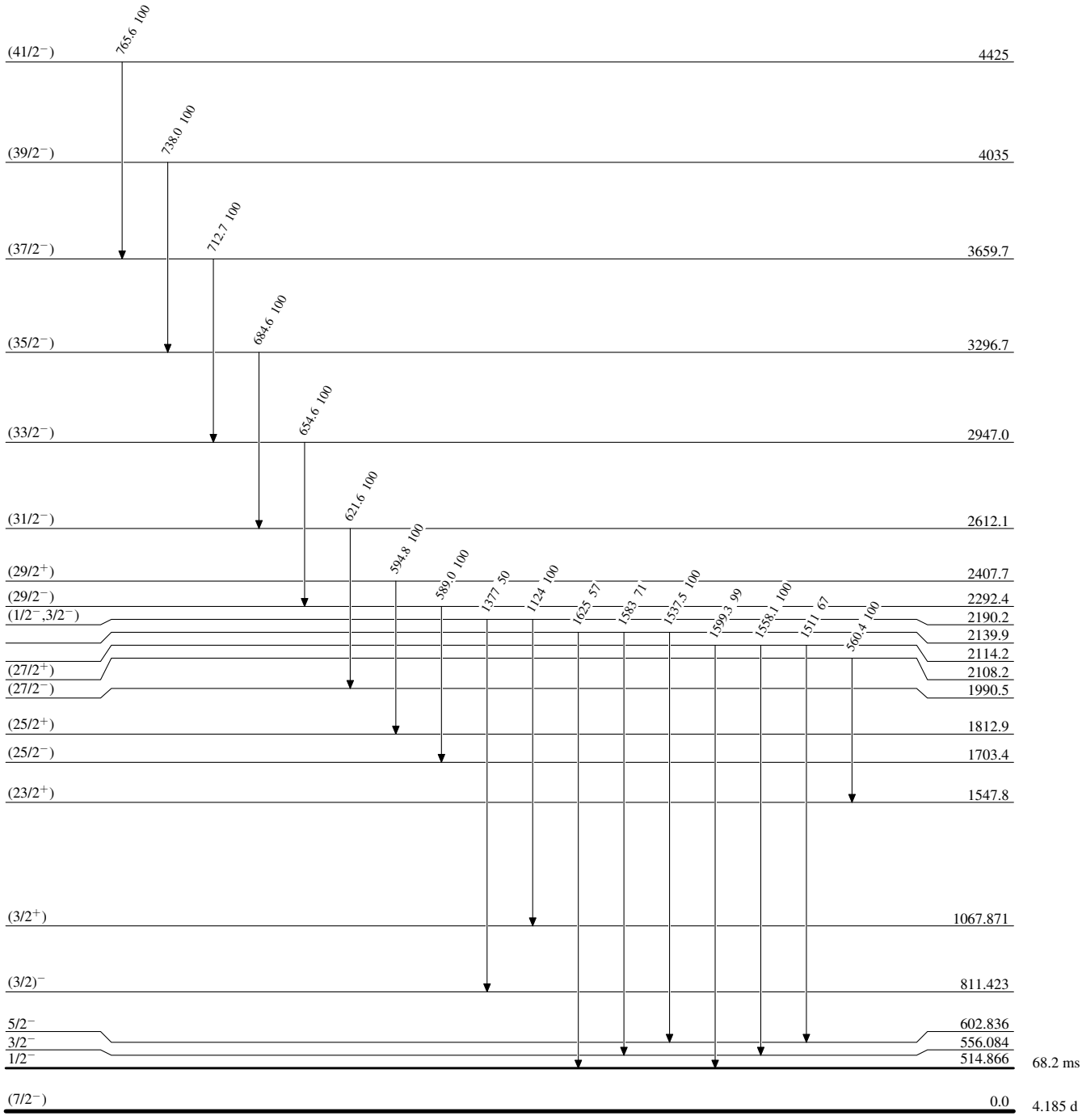
Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

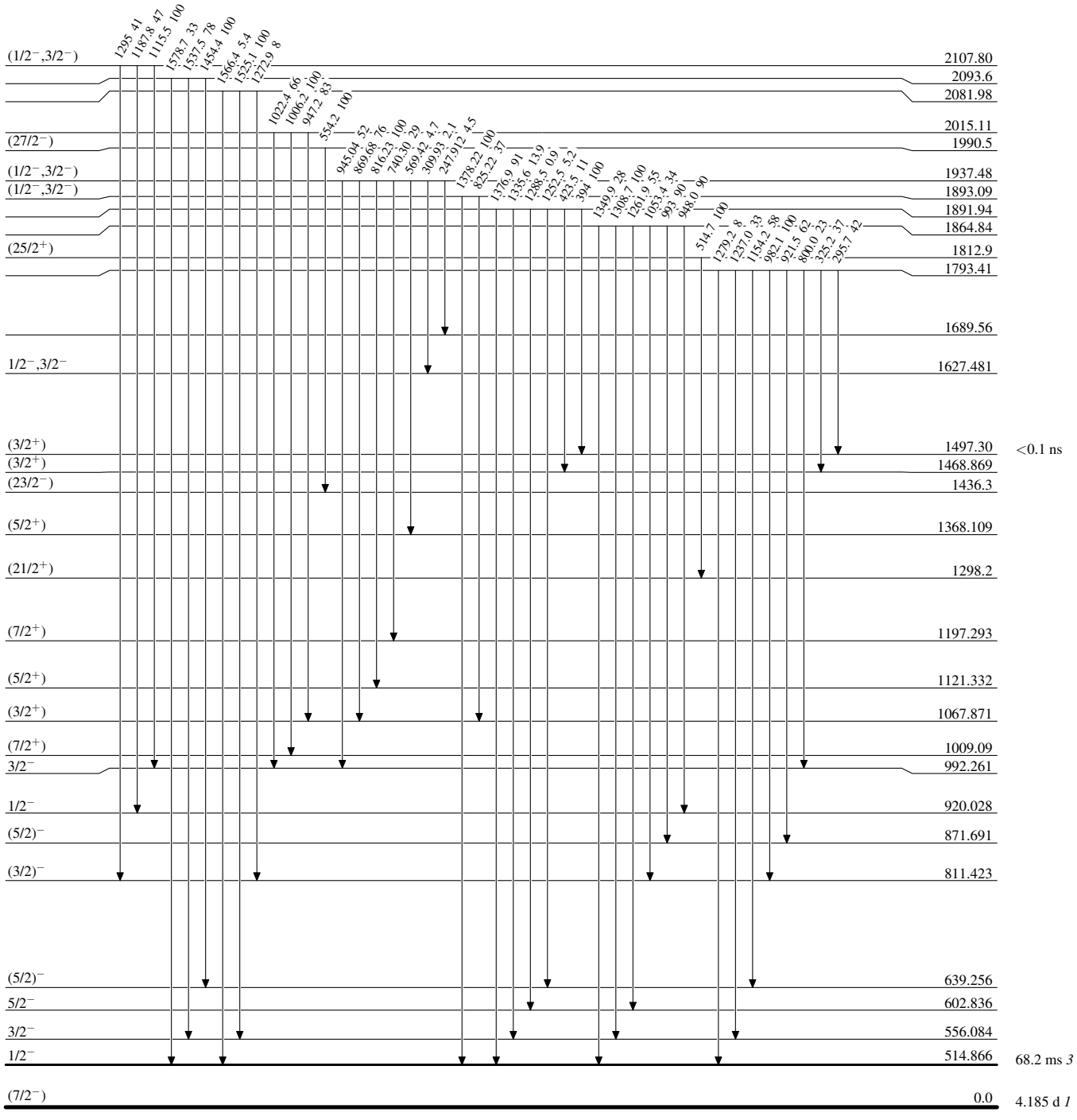


$^{175}_{70}Yb_{105}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

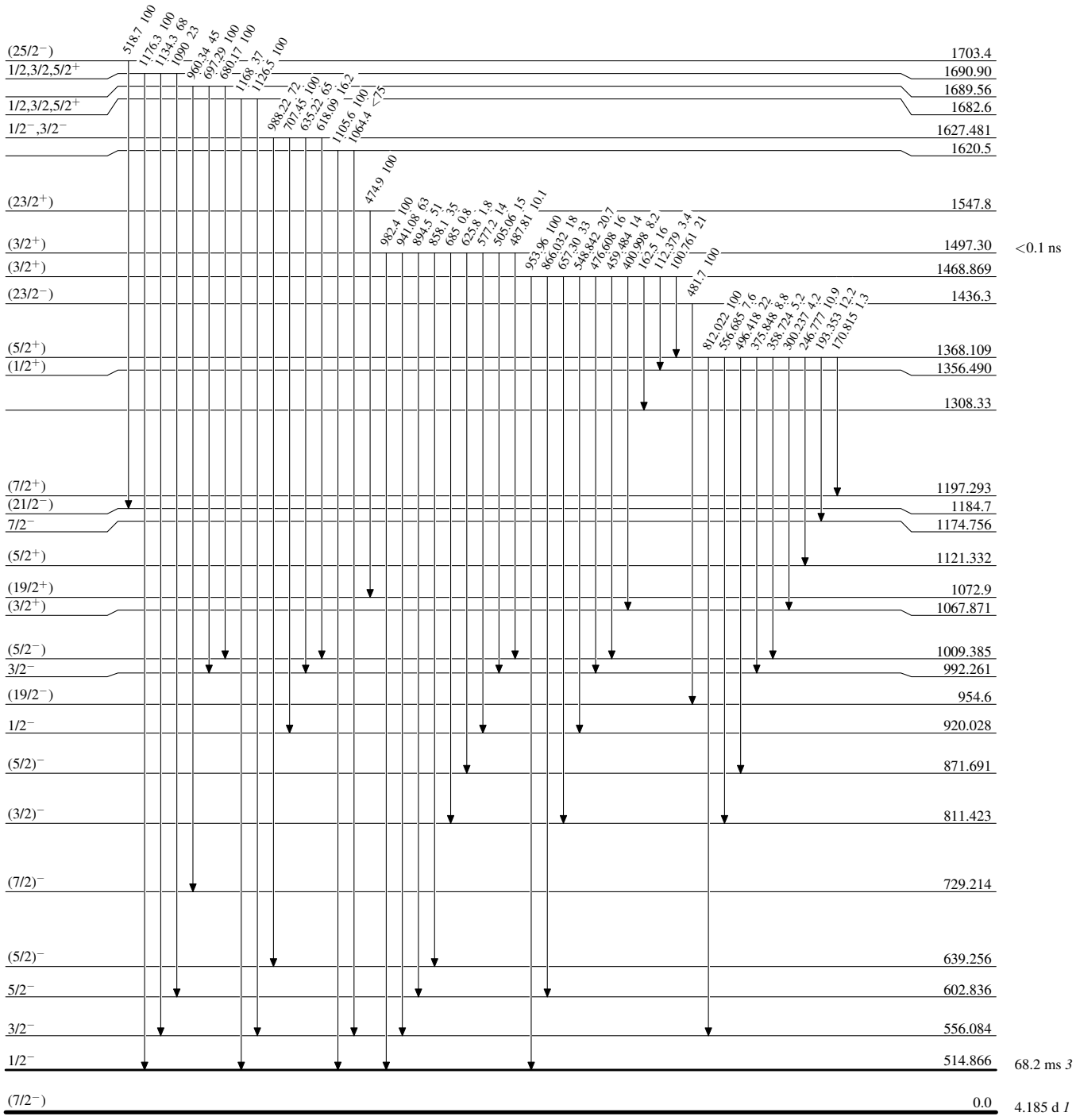


$^{175}_{70}Yb_{105}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{175}_{70}Yb_{105}$

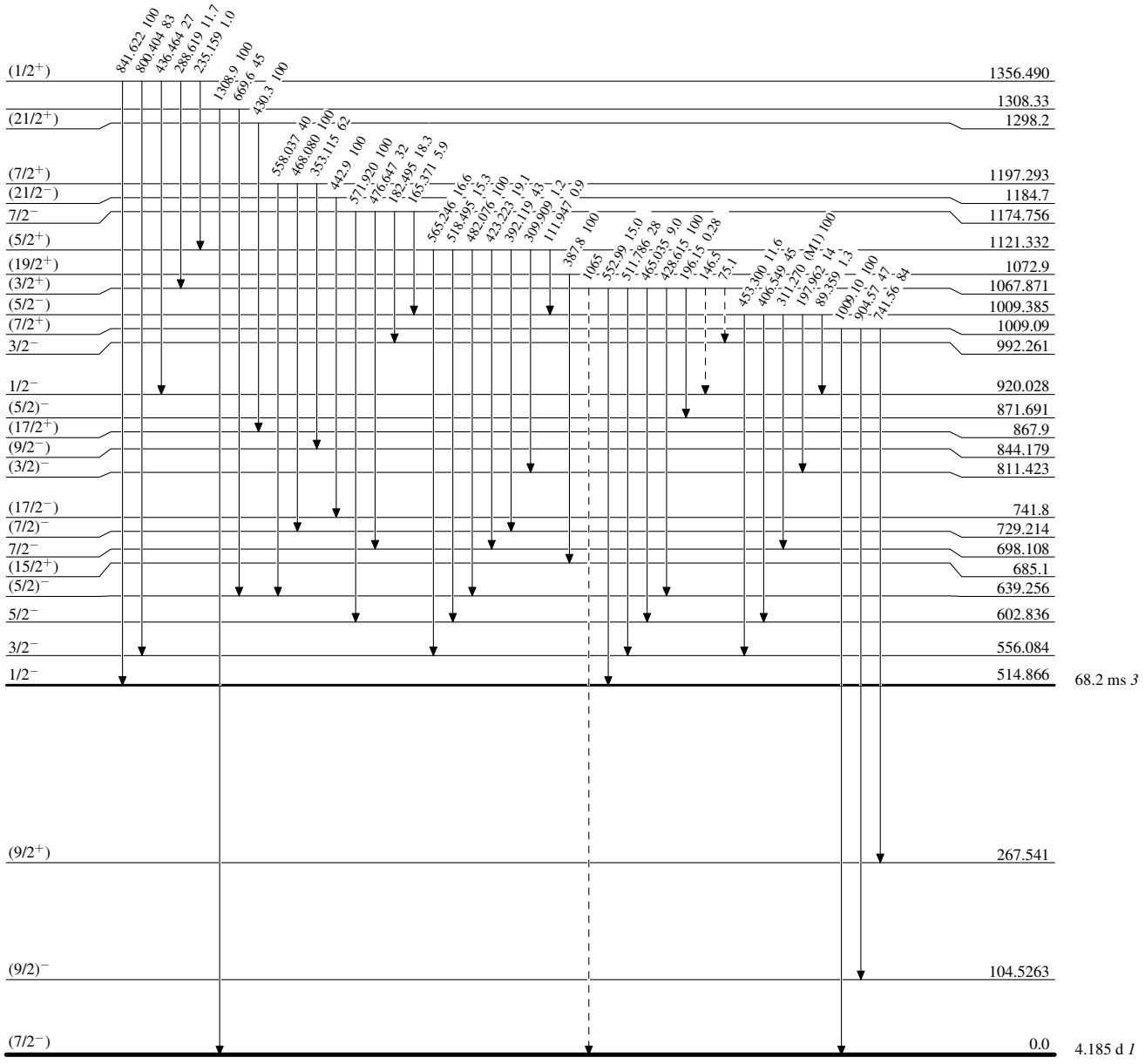
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



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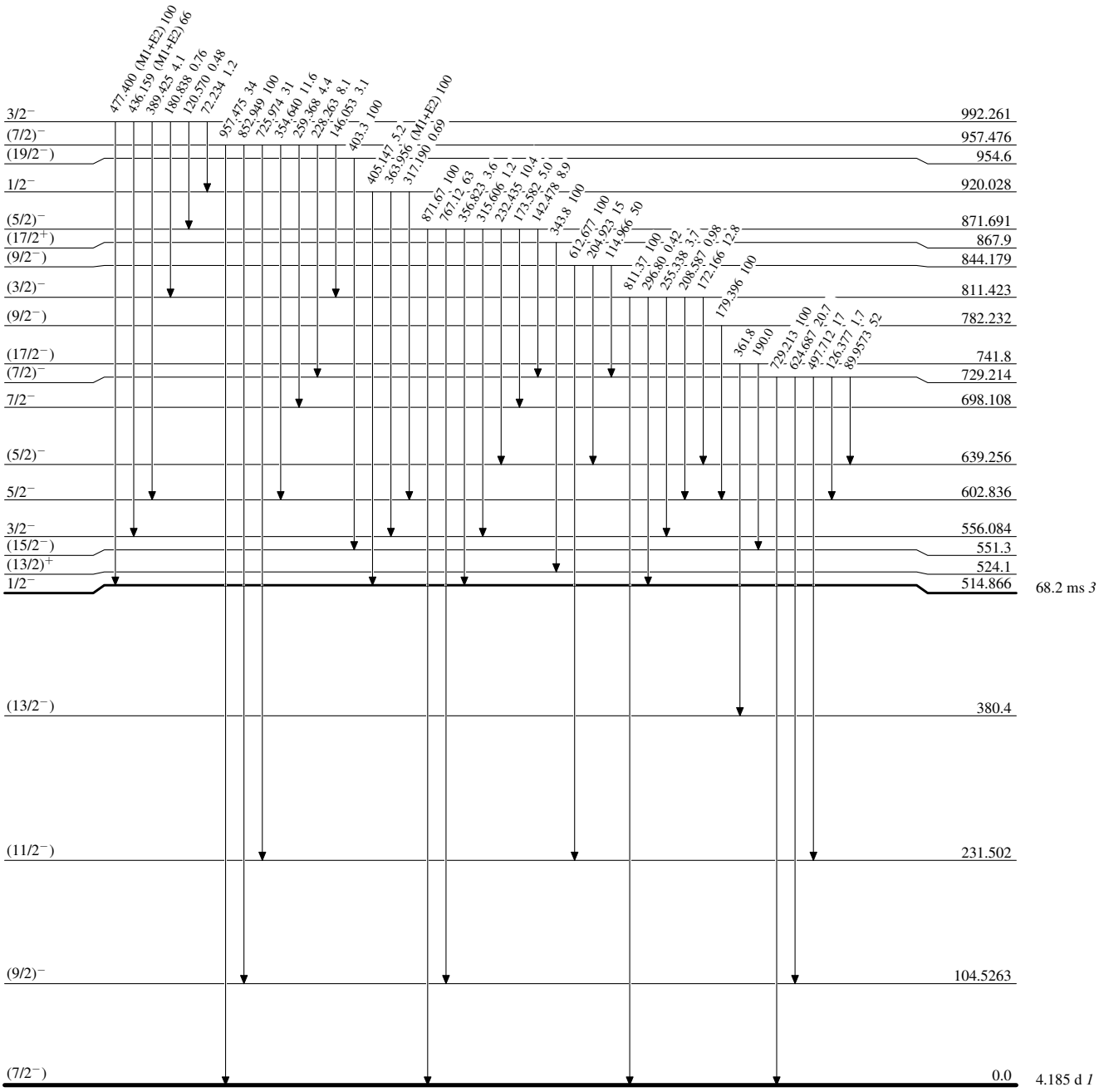
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



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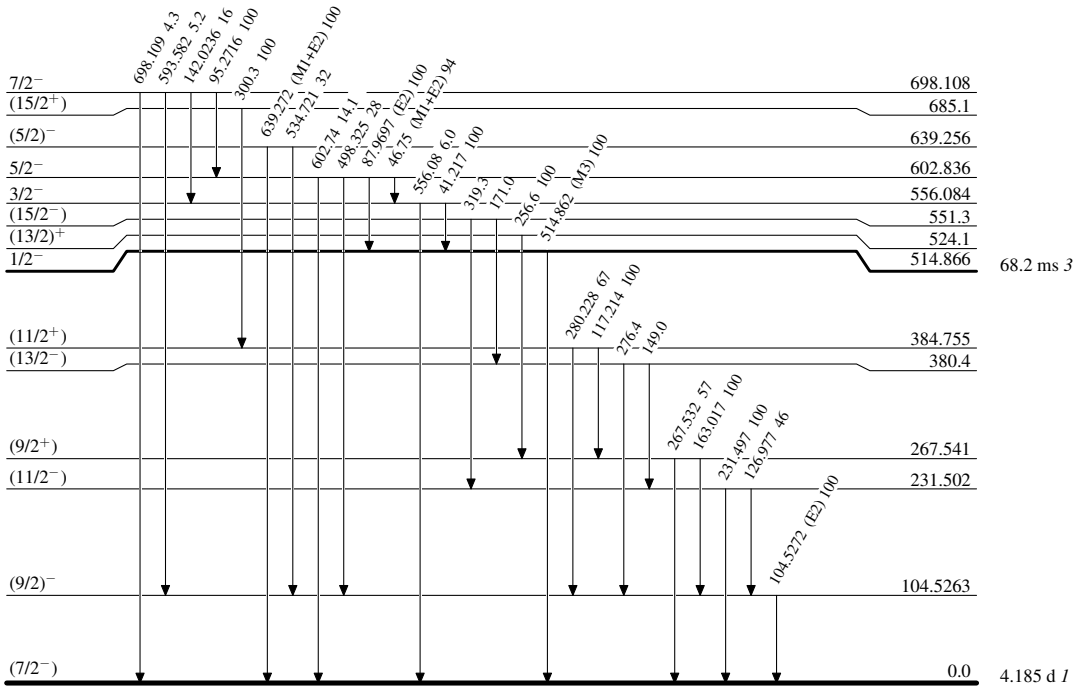
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



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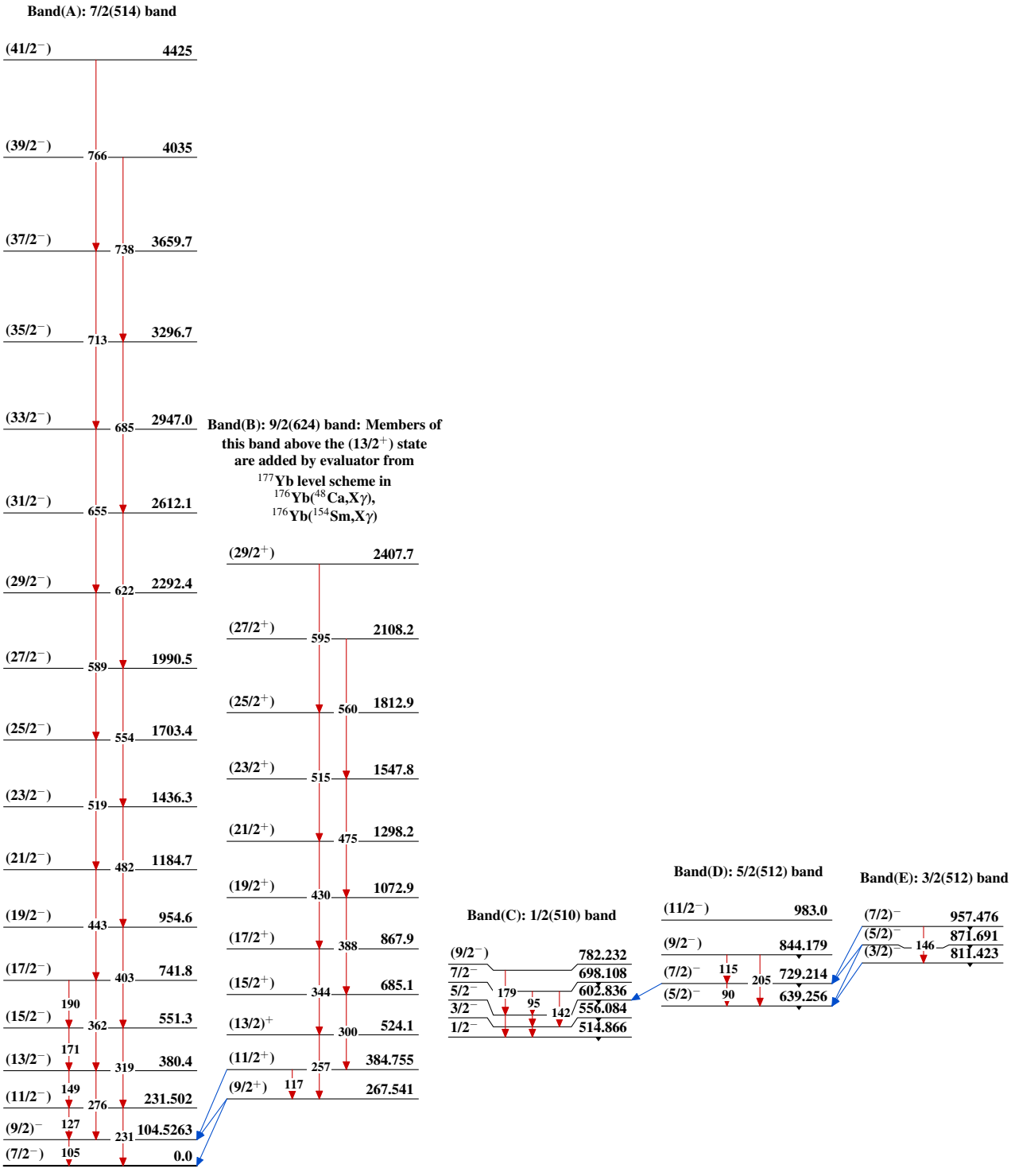
Adopted Levels, Gammas



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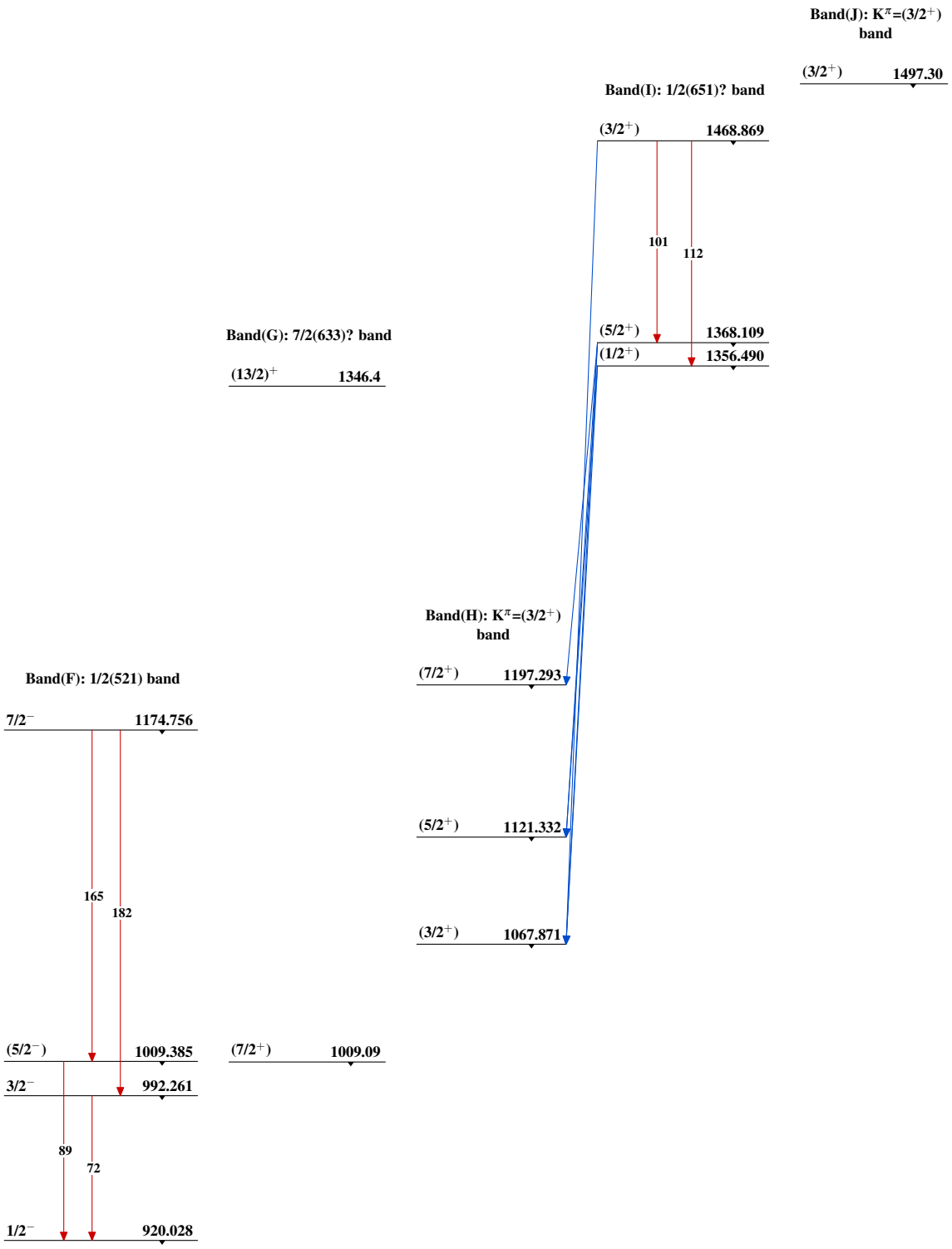
Adopted Levels, Gammas (continued)



$^{175}_{70}Yb_{105}$