^{174}Yb(n,γ) E=thermal 1971Al27,1971Br17

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 102, 719 (2004)	1-Jun-2004

1971Al27: ^{174}Yb enriched target 95.8%. Measured Eγ, Iγ. Ge(Li) detector. Pair spectrometer. Absolute normalization per 100 neutron captures based on γ-ray intensities relative to primary γ-ray in Ni.
1971Br17: ^{174}Yb enriched target 99.9%. Curved crystal spectrometer.
Others: 1967Bo19, 1969Na08, 1984Va38, 1986Va30.

^{175}Yb Levels

E(level)†	J$^\pi$@	$T_{1/2}$	Comments
0.0	7/2$^-$	4.185 d *1*	$T_{1/2}$: from 1989Ab05.
104.5266 *19*	(9/2)$^-$		
231.502 *6*	(11/2$^-$)		
267.541 *4*	(9/2$^+$)		
384.755 *7*	(11/2$^+$)		
514.869 *7*	1/2$^-$&	68.2 ms *3*	$T_{1/2}$: from 1972Br53.
556.087 *7*	3/2$^-$*a*		
602.838 *7*	5/2$^-$		
639.258 *7*	(5/2)$^-$		
698.111 *7*	7/2$^-$		
729.215 *7*	(7/2)$^-$		
782.234? *9*	(9/2$^-$)		
811.425 *8*	(3/2)$^-$&		
844.181 *11*	(9/2$^-$)		
871.693 *8*	(5/2)$^-$		
920.027 *9*	1/2$^-$&		
957.478 *17*	(7/2)$^-$		
992.263 *8*	3/2$^-$&		
1009.1 *1*	(7/2$^+$)		
1009.387 *9*	5/2$^-$		
1067.874 *10*	(3/2$^+$)		
1121.334 *10*	(5/2$^+$)&		
1174.758 *10*	7/2$^-$		
1197.296 *20*	(7/2$^+$)		
1356.493 *11*	(1/2)$^+$&		
1368.111 *11*	(5/2)$^+$&		
1415.4? *11*			
1468.872 *11*	(3/2$^+$)&		
1497.32 *5*	(3/2$^+$)		
1549.5‡ *20*	1/2,3/2,5/2		
1627.48 *4*	(1/2,3/2)$^-$&		
1647.7‡ *16*	1/2,3/2,5/2		
1660.5‡ *20*	1/2,3/2,5/2		
1683.8‡ *20*	1/2,3/2,5/2		
1689.56 *5*			
1692.8‡ *20*	1/2,3/2,5/2		
1844.2‡ *20*	1/2,3/2,5/2		
1893.10 *7*	(1/2$^-$,3/2$^-$)		
1937.47 *4*	(1/2$^-$,3/2$^-$)*a*		
1968.2‡ *16*	1/2,3/2,5/2		
1980.3‡ *16*	1/2,3/2,5/2		

Continued on next page (footnotes at end of table)

^{174}Yb(n,γ) E=thermal 1971Al27,1971Br17 (continued)

^{175}Yb Levels (continued)

E(level)[†]	Jπ[@]	E(level)[†]	Jπ[@]	E(level)[†]	Jπ[@]
1998.6[‡] *16*	1/2,3/2,5/2	2046.2[‡] *25*	1/2,3/2,5/2	2107.3[#] *9*	(1/2$^-$,3/2$^-$)
2015.08 *19*		2065.1[‡] *20*	1/2,3/2,5/2	2161.2[‡] *16*	1/2,3/2,5/2
2039.5[‡] *20*	1/2,3/2,5/2	2081.6[‡] *16*	(1/2,3/2)	2190.1[#] *10*	(1/2$^-$,3/2$^-$)
				(5822.5 *4*)	1/2$^+$

[†] Deduced by evaluator from least-squares fit to γ-ray energies.
[‡] From 1971Al27.
[#] From 1967Bo19.
[@] From Adopted Levels.
[&] J=(1/2,3/2), populated by primary transition from the capture state (Jπ=1/2$^+$).
[a] Jπ=(1/2$^-$,3/2$^-$), E1 transition from capture state.

^{174}Yb(n,γ) E=thermal 1971Al27,1971Br17 (continued)

$\gamma(^{175}Yb)$

γ ray energies and relative intensities are also reported by 1967Bo19, but the correspondence with data of 1971Br17 is ambiguous.

E_γ [†]	I_γ [‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.
41.2174 *17*	7 *2*	556.087	3/2$^-$	514.869	1/2$^-$	
46.7490[b] *25*	1.6 *5*	602.838	5/2$^-$	556.087	3/2$^-$	(M1)[c]
72.234 *7*	0.06 *2*	992.263	3/2$^-$	920.027	1/2$^-$	
x86.567[a] *17*	0.016 *8*					
87.9697[b] *20*	1.7 *3*	602.838	5/2$^-$	514.869	1/2$^-$	(E2)[c]
89.371 *12*	0.023 *8*	1009.387	5/2$^-$	920.027	1/2$^-$	
89.9573 *25*	0.43 *9*	729.215	(7/2)$^-$	639.258	(5/2)$^-$	
95.2716 *25*	1.3 *3*	698.111	7/2$^-$	602.838	5/2$^-$	
100.759 *4*	0.13 *3*	1468.872	(3/2$^+$)	1368.111	(5/2)$^+$	
x103.907 *6*	0.037 *9*					
104.5272 *20*	2.8 *6*	104.5266	(9/2)$^-$	0.0	7/2$^-$	
111.955 *11*	0.014 *4*	1121.334	(5/2$^+$)	1009.387	5/2$^-$	
112.388 *10*	0.021 *5*	1468.872	(3/2$^+$)	1356.493	(1/2)$^+$	
114.967 *8*	0.026 *6*	844.181	(9/2$^-$)	729.215	(7/2)$^-$	
117.214 *6*	0.042 *8*	384.755	(11/2$^+$)	267.541	(9/2$^+$)	
120.568 *9*	0.024 *5*	992.263	3/2$^-$	871.693	(5/2)$^-$	
126.378[al] *25*	0.014 *5*	729.215	(7/2)$^-$	602.838	5/2$^-$	
126.977 *6*	0.066 *14*	231.502	(11/2$^-$)	104.5266	(9/2)$^-$	
x129.110 *9*	0.028 *6*					
x129.249 *12*	0.020 *5*					
x135.839 *14*	0.016 *4*					
x137.505 *8*	0.027 *6*					
142.024 *4*	0.21 *4*	698.111	7/2$^-$	556.087	3/2$^-$	
142.478 *4*	0.139 *24*	871.693	(5/2)$^-$	729.215	(7/2)$^-$	
146.06[al] *5*	0.010 *5*	957.478	(7/2)$^-$	811.425	(3/2)$^-$	
x147.343[a] *25*	0.012 *4*					
x147.876 *6*	0.077 *13*					
x150.408[e] *20*	0.010 *2*					
x159.487 *13*	0.021 *4*					
163.017 *4*	0.86 *12*	267.541	(9/2$^+$)	104.5266	(9/2)$^-$	
165.350 *13*	0.018 *4*	1174.758	7/2$^-$	1009.387	5/2$^-$	
x169.20 *4*	0.010 *3*					
170.80 *3*	0.009 *3*	1368.111	(5/2)$^+$	1197.296	(7/2$^+$)	
172.166 *4*	0.77 *10*	811.425	(3/2)$^-$	639.258	(5/2)$^-$	
173.581 *6*	0.078 *11*	871.693	(5/2)$^-$	698.111	7/2$^-$	
179.396 *6*	0.076 *10*	782.234?	(9/2$^-$)	602.838	5/2$^-$	
180.838 *8*	0.038 *5*	992.263	3/2$^-$	811.425	(3/2)$^-$	
182.492 *7*	0.056 *7*	1174.758	7/2$^-$	992.263	3/2$^-$	

$^{175}_{70}Yb_{105}$-3

^{174}Yb(n,γ) E=thermal 1971Al27,1971Br17 (continued)

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

E_γ †	I_γ ‡	E_i(level)	J_i^π	E_f	J_f^π
x184.589 5	0.189 23				
x189.763 17	0.014 3				
x191.15 4	0.010 3				
193.343 6	0.082 10	1368.111	$(5/2)^+$	1174.758	$7/2^-$
196.15 5	0.011 3	1067.874	$(3/2^+)$	871.693	$(5/2)^-$
x196.54 4	0.0089 23				
x198.054 13	0.044 6				
x199.658 5	0.143 16				
204.77 7	0.008 3	844.181	$(9/2^-)$	639.258	$(5/2)^-$
x206.67 4	0.015 3				
x207.953 8	0.054 6				
208.585 8	0.059 7	811.425	$(3/2)^-$	602.838	$5/2^-$
x209.296 13	0.032 5				
x217.006 17	0.027 4				
x224.37 5	0.011 3				
x227.36 4	0.015 3				
228.286 20	0.026 5	957.478	$(7/2)^-$	729.215	$(7/2)^-$
x231.412 10	0.184 24				
231.497 13	0.143 19	231.502	$(11/2^-)$	0.0	$7/2^-$
232.436 6	0.162 15	871.693	$(5/2)^-$	639.258	$(5/2)^-$
235.21 6	0.0089 18	1356.493	$(1/2)^+$	1121.334	$(5/2^+)$
x243.175 15	0.053 8				
x243.93 6	0.021 4				
246.809 11	0.073 7	1368.111	$(5/2)^+$	1121.334	$(5/2^+)$
x247.316 20	0.028 4				
247.912 15	0.039 5	1937.47	$(1/2^-,3/2^-)$	1689.56	
x252.488 17	0.039 5				
x253.79 9	0.015 5				
255.348 8	0.219 20	811.425	$(3/2)^-$	556.087	$3/2^-$
259.36 3	0.014 3	957.478	$(7/2)^-$	698.111	$7/2^-$
x262.60[a] 13	0.009 4				
267.532 7	0.49 4	267.541	$(9/2^+)$	0.0	$7/2^-$
x268.36 3	0.030 6				
x275.875 9	0.32 3				
x276.62 6	0.022 5				
x279.01 6	0.017 3				
280.19 7	0.028 10	384.755	$(11/2^+)$	104.5266	$(9/2)^-$
x288.064 17	0.059 7				
288.626 11	0.104 10	1356.493	$(1/2)^+$	1067.874	$(3/2^+)$
x289.89 5	0.053 19				
x291.09 5	0.020 4				
x291.776 20	0.044 5				
x296.062 13	0.062 8				
296.80 5	0.025 5	811.425	$(3/2)^-$	514.869	$1/2^-$

$^{175}_{70}Yb_{105}$-4

^{174}Yb(n,γ) E=thermal 1971Al27,1971Br17 (continued)

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

E_γ †	I_γ ‡	E_i(level)	J_i^π	E_f	J_f^π	Mult.	Comments
300.24 *4*	0.028 *8*	1368.111	$(5/2)^+$	1067.874	$(3/2^+)$		
309.93[k] *10*	0.018[k] *6*	1121.334	$(5/2^+)$	811.425	$(3/2)^-$		
309.93[k] *10*	0.018[k] *6*	1937.47	$(1/2^-,3/2^-)$	1627.48	$(1/2,3/2)^-$		
311.270 *7*	1.72 *14*	1009.387	$5/2^-$	698.111	$7/2^-$	(M1)[f]	
315.60 *5*	0.019 *4*	871.693	$(5/2)^-$	556.087	$3/2^-$		
317.19 *4*	0.036 *6*	920.027	$1/2^-$	602.838	$5/2^-$		
[x]318.01 *8*	0.017 *6*						
[x]324.494 *20*	0.055 *7*						
[x]340.31 *7*	0.024 *7*						
[x]341.732 *14*	0.202 *20*						
[x]346.36 *6*	0.035 *6*						
[x]347.14 *4*	0.024 *6*						
353.120 *25*	0.087 *10*	1197.296	$(7/2^+)$	844.181	$(9/2^-)$		
354.60 *3*	0.037 *7*	957.478	$(7/2)^-$	602.838	$5/2^-$		
356.783 *20*	0.056 *7*	871.693	$(5/2)^-$	514.869	$1/2^-$		
358.65 *5*	0.035 *6*	1368.111	$(5/2)^+$	1009.387	$5/2^-$		
363.957 *9*	5.2 *4*	920.027	$1/2^-$	556.087	$3/2^-$	(M1)	Mult.: From α(K)exp=0.07 *3*(1967Bo19).
[x]374.53[a] *14*	0.013 *5*						
375.85 *3*	0.059 *8*	1368.111	$(5/2)^+$	992.263	$3/2^-$		
[x]378.68[a] *8*	0.024 *7*						
[x]386.27 *14*	0.021 *6*						
[x]386.98 *12*	0.039 *12*						
389.420 *14*	0.205 *16*	992.263	$3/2^-$	602.838	$5/2^-$		
392.114 *12*	0.64 *5*	1121.334	$(5/2^+)$	729.215	$(7/2)^-$		
[x]393.11 *5*	0.052 *10*						
[x]394.605 *17*	0.217 *20*						
[x]397.87 *6*	0.057 *11*						
[x]399.43 *13*	0.043 *11*						
400.91 *12*	0.051 *13*	1468.872	$(3/2^+)$	1067.874	$(3/2^+)$		
[x]402.11[a] *14*	0.034 *10*						
[x]404.40 *13*	0.048 *12*						
405.147 *17*	0.268 *24*	920.027	$1/2^-$	514.869	$1/2^-$		
406.549 *12*	0.77 *6*	1009.387	$5/2^-$	602.838	$5/2^-$		
[x]411.921 *25*	0.137 *14*						
[x]417.90 *4*	0.085 *12*						
423.230 *14*	0.287 *20*	1121.334	$(5/2^+)$	698.111	$7/2^-$		
428.626 *12*	4.0 *3*	1067.874	$(3/2^+)$	639.258	$(5/2)^-$	(E1,E2)	Mult.: From α(K)exp < 2 (1967Bo19).
[x]430.43 *10*	0.053 *21*						
[x]431.18 *10*	0.07 *3*						
[x]432.05 *7*	0.093 *19*						
436.159 *20*	3.3 *3*	992.263	$3/2^-$	556.087	$3/2^-$	(M1)[g]	
436.465 *25*	0.24 *4*	1356.493	$(1/2)^+$	920.027	$1/2^-$		
[x]439.92 *11*	0.073 *15*						

$^{175}_{70}Yb_{105}$-5

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

E_γ †	I_γ ‡	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ
x445.95 7	0.099 14						
x448.39[a] 14	0.046 14						
453.32 5	0.20 3	1009.387	5/2$^-$	556.087	3/2$^-$		
x457.97 10	0.103 21						
459.52 10	0.086 17	1468.872	(3/2$^+$)	1009.387	5/2$^-$		
465.059 25	0.36 3	1067.874	(3/2$^+$)	602.838	5/2$^-$		
468.03 5	0.140 18	1197.296	(7/2$^+$)	729.215	(7/2)$^-$		
476.65[k] 5	0.097[k] 19	1174.758	7/2$^-$	698.111	7/2$^-$		
476.65[k] 4	0.097[k] 19	1468.872	(3/2$^+$)	992.263	3/2$^-$		
477.401 13	5.0 4	992.263	3/2$^-$	514.869	1/2$^-$	(M1+E2)[h]	<4.2[h]
x480.03 6	0.105 21						
482.075 17	1.50 12	1121.334	(5/2$^+$)	639.258	(5/2)$^-$		
x483.14 8	0.16 4						
487.84 10	0.085 13	1497.32	(3/2$^+$)	1009.387	5/2$^-$		
496.51 7	0.15 4	1368.111	(5/2)$^+$	871.693	(5/2)$^-$		
497.74 4	0.14 3	729.215	(7/2)$^-$	231.502	(11/2$^-$)		
498.325 25	0.47 5	602.838	5/2$^-$	104.5266	(9/2)$^-$		
505.03 8	0.122 25	1497.32	(3/2$^+$)	992.263	3/2$^-$		
511.777 20	1.11 11	1067.874	(3/2$^+$)	556.087	3/2$^-$		
514.863 11	61 4	514.869	1/2$^-$	0.0	7/2$^-$	(M3)[i]	
518.49 5	0.23 3	1121.334	(5/2$^+$)	602.838	5/2$^-$		
x521.37[a] 12	0.040 14						
x527.39 15	0.043 17						
x528.34 8	0.133 23						
534.723 14	3.27 23	639.258	(5/2)$^-$	104.5266	(9/2)$^-$		
x540.77 20	0.06 3						
x544.82 8	0.165 23						
548.76 6	0.128 15	1468.872	(3/2$^+$)	920.027	1/2$^-$		
552.99 3	0.60 5	1067.874	(3/2$^+$)	514.869	1/2$^-$		
556.09 3	0.42 3	556.087	3/2$^-$	0.0	7/2$^-$		
556.83 14	0.051 13	1368.111	(5/2)$^+$	811.425	(3/2)$^-$		
558.03 13	0.056 20	1197.296	(7/2$^+$)	639.258	(5/2)$^-$		
565.29 4	0.249 20	1121.334	(5/2$^+$)	556.087	3/2$^-$		
x566.72[#a] 7	0.109 12						
569.42 11	0.040 10	1937.47	(1/2$^-$,3/2$^-$)	1368.111	(5/2)$^+$		
571.90 5	0.305 25	1174.758	7/2$^-$	602.838	5/2$^-$		
577.28 11	0.114 23	1497.32	(3/2$^+$)	920.027	1/2$^-$		
x578.14 12	0.088 22						
593.74 20	0.068 14	698.111	7/2$^-$	104.5266	(9/2)$^-$		
x596.26[a] 17	0.031 12						
x600.84[#] 12	0.100 25						
602.77 7	0.24 3	602.838	5/2$^-$	0.0	7/2$^-$		

^{174}Yb(n,γ) E=thermal 1971Al27,1971Br17 (continued)

γ(^{175}Yb) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.
[x]606.06 *14*	0.043 *15*					
612.59[al] *14*	0.052 *18*	844.181	(9/2$^-$)	231.502	(11/2$^-$)	
618.02 *9*	0.128 *18*	1627.48	(1/2,3/2)$^-$	1009.387	5/2$^-$	
624.70 *7*	0.170 *17*	729.215	(7/2)$^-$	104.5266	(9/2)$^-$	
625.8[al] *3*	0.024 *10*	1497.32	(3/2$^+$)	871.693	(5/2)$^-$	
[x]630.11 *15*	0.043 *15*					
[x]631.78 *20*	0.032 *11*					
635.25 *5*	0.51 *5*	1627.48	(1/2,3/2)$^-$	992.263	3/2$^-$	
639.274 *17*	9.2 *7*	639.258	(5/2)$^-$	0.0	7/2$^-$	(M1,E2)[j]
[x]642.93 *17*	0.08 *2*					
657.32 *7*	0.205 *21*	1468.872	(3/2$^+$)	811.425	(3/2)$^-$	
[x]669.35 *6*	0.71 *6*					
[x]670.89 *11*	0.080 *16*					
[x]675.33 *14*	0.038 *9*					
680.11 *11*	0.22 *3*	1689.56		1009.387	5/2$^-$	
[x]683.91 *7*	0.30 *3*					
[x]689.17 *14*	0.076 *19*					
[x]691.4 *3*	0.036 *14*					
697.16 *11*	0.22 *4*	1689.56		992.263	3/2$^-$	
698.38 *25*	0.056 *20*	698.111	7/2$^-$	0.0	7/2$^-$	
[x]701.07 *20*	0.110 *22*					
707.41 *7*	0.79 *7*	1627.48	(1/2,3/2)$^-$	920.027	1/2$^-$	
[x]714.3[a] *5*	0.048 *19*					
[x]722.74[a] *20*	0.052 *21*					
725.72 *20*	0.10 *3*	957.478	(7/2)$^-$	231.502	(11/2$^-$)	
729.22 *6*	0.82 *8*	729.215	(7/2)$^-$	0.0	7/2$^-$	
740.30 *20*	0.25 *6*	1937.47	(1/2$^-$,3/2$^-$)	1197.296	(7/2$^+$)	
741.65 *13*	0.52 *9*	1009.1	(7/2$^+$)	267.541	(9/2$^+$)	
[x]760.53 *14*	0.15 *3*					
[x]764.04[a] *25*	0.057 *20*					
767.13 *6*	0.98 *10*	871.693	(5/2)$^-$	104.5266	(9/2)$^-$	
[x]773.37 *9*	0.25 *3*					
[x]776.19 *9*	0.23 *3*					
800.47 *7*	0.74 *7*	1356.493	(1/2)$^+$	556.087	3/2$^-$	
811.39 *7*	6.0 *7*	811.425	(3/2)$^-$	0.0	7/2$^-$	
812.09 *12*	0.67 *20*	1368.111	(5/2)$^+$	556.087	3/2$^-$	
816.23 *10*	0.86 *8*	1937.47	(1/2$^-$,3/2$^-$)	1121.334	(5/2$^+$)	
[x]821.25 *25*	0.09 *3*					
825.22 *7*	1.00 *8*	1893.10	(1/2$^-$,3/2$^-$)	1067.874	(3/2$^+$)	
[x]835.0 *3*	0.12 *4*					
841.67 *9*	0.89 *8*	1356.493	(1/2)$^+$	514.869	1/2$^-$	
852.68 *17*	0.32 *7*	957.478	(7/2)$^-$	104.5266	(9/2)$^-$	
858.26 *17*	0.29 *5*	1497.32	(3/2$^+$)	639.258	(5/2)$^-$	

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

^{174}Yb(n,γ) E=thermal 1971Al27,1971Br17 (continued)

γ(^{175}Yb) (continued)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π
[x]862.31 *25*	0.18 *5*				
866.2 *3*	0.11 *4*	1468.872	(3/2$^+$)	602.838	5/2$^-$
869.68 *12*	0.65 *8*	1937.47	(1/2$^-$,3/2$^-$)	1067.874	(3/2$^+$)
871.69 *8*	1.56 *12*	871.693	(5/2)$^-$	0.0	7/2$^-$
894.68 *15*	0.43 *6*	1497.32	(3/2$^+$)	602.838	5/2$^-$
904.7 *3*	0.29 *7*	1009.1	(7/2$^+$)	104.5266	(9/2)$^-$
[x]932.3[a] *3*	0.13 *5*				
941.15 *17*	0.53 *7*	1497.32	(3/2$^+$)	556.087	3/2$^-$
945.04 *17*	0.45 *8*	1937.47	(1/2$^-$,3/2$^-$)	992.263	3/2$^-$
947.2 *3*	0.29 *7*	2015.08		1067.874	(3/2$^+$)
954.1 *3*	0.62 *13*	1468.872	(3/2$^+$)	514.869	1/2$^-$
957.3 *4*	0.11 *4*	957.478	(7/2)$^-$	0.0	7/2$^-$
961.1[al] *4*	0.10 *4*	1689.56		729.215	(7/2)$^-$
[x]976.6 *4*	0.18 *6*				
982.55 *15*	0.84 *10*	1497.32	(3/2$^+$)	514.869	1/2$^-$
988.18 *20*	0.57 *10*	1627.48	(1/2,3/2)$^-$	639.258	(5/2)$^-$
[x]992.7 *3*	0.55 *11*				
1006.2 *3*	0.35 *10*	2015.08		1009.1	(7/2$^+$)
1008.81 *20*	0.62 *15*	1009.1	(7/2$^+$)	0.0	7/2$^-$
1022.4[al] *5*	0.23 *8*	2015.08		992.263	3/2$^-$
[x]1052.9 *6*	0.39 *14*				
[x]1060.8 *7*	0.53 *21*				
[x]1080.1 *7*	0.31 *14*				
[x]1089.5[#] *5*	0.67 *20*				
1115.5 *3*	0.74 *15*	2107.3	(1/2$^-$,3/2$^-$)	992.263	3/2$^-$
1124[@] *2*	0.6 *2*	2190.1	(1/2$^-$,3/2$^-$)	1067.874	(3/2$^+$)
[x]1128.2[#] *3*	0.93 *19*				
[x]1134.69 *25*	1.14 *23*				
[x]1169.7 *5*	0.35 *12*				
1188[@] *2*	0.35 *10*	2107.3	(1/2$^-$,3/2$^-$)	920.027	1/2$^-$
[x]1197.1 *5*	0.9 *3*				
1295[@] *2*	0.3 *1*	2107.3	(1/2$^-$,3/2$^-$)	811.425	(3/2)$^-$
[x]1308.0 *6*	1.0 *3*				
1377[@] *2*	0.3 *1*	2190.1	(1/2$^-$,3/2$^-$)	811.425	(3/2)$^-$
1378.5 *7*	2.7 *7*	1893.10	(1/2$^-$,3/2$^-$)	514.869	1/2$^-$
[x]1412.9[&] *20*	0.35[&]				
[x]1423.6[&] *20*	0.25[&]				
[x]1454.3[&] *20*	0.55[&]				
[x]1527.0[&] *20*	0.45[&]				
[x]1538.0[&] *20*	0.41[&]				

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

^{174}Yb(n,γ) E=thermal 1971Al27,1971Br17 (continued)

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

E_γ †	I_γ ‡	E_i(level)	Mult.	E_γ †	I_γ ‡	E_i(level)	Mult.
x1597.0& 25	0.36&			x2555.0& 20	0.68&		
x1622.9& 20	0.61&			x2585.4& 20	0.93&		
x1633.2& 20	0.76&			x2596.2& 20	0.40&		
x1676.0& 20	0.58&			x2617.0& 20	0.12&		
x1764.7& 20	0.24&			x2626.3& 20	0.19&		
x1814.0& 20	0.38&			x2637.5& 25	0.15&		
x1828.0& 25	0.49&			x2646.8& 20	0.33&		
x1853.2& 20	0.56&			x2663.6& 15	0.99&		
x1883.6& 20	0.55&			x2685.0&b 20	0.53&		c
x1914.3&b 25	0.87&		c	x2703.6& 25	0.39&		
x1942.1&b 30	0.85&		c	x2712.9& 20	0.53&		
x1959.9& 25	0.39&			x2726.0& 20	0.13&		
x1979.4& 20	0.49&			x2735.3& 20	0.16&		
x2000.8& 25	0.29&			x2770.6& 15	0.53&		
x2095.8& 25	0.33&			x2797.6&b 20	0.68&		c
x2132.1& 25	0.56&			x2813.4&b 20	0.47&		c
x2167.5& 20	0.34&			x2844.4& 25	0.11&		
x2189.8& 20	0.27&			x2854.4& 20	0.23&		
x2217.7& 25	0.53&			x2873.0& 20	0.32&		
x2235.4&b 35	0.85&		c	x2881.5& 25	0.26&		
x2258.7& 20	0.27&			x2894.3& 25	0.77&		
x2320.7& 20	0.33&			x2907.5& 15	0.64&		
x2354.7& 20	0.35&			x2923.3& 15	0.36&		
x2364.8&b 25	0.37&		c	x2943.7& 15	0.86&		
x2379.7& 25	0.22&			x2960.5& 20	0.74&		
x2401.1& 20	0.24&			x2969.8& 20	0.41&		
x2435.5& 20	0.13&			x2977.3& 20	0.70&		
x2454.1& 20	0.38&			x3003.3& 15	0.48&		
x2467.2& 20	0.51&			x3021.6& 15	0.66&		
x2488.5& 25	0.23&			x3050.8&b 15	1.1&		c
x2496.0& 25	0.39&			x3079.7& 25	1.2&		
x2509.0& 25	0.27&			x3089.0& 25	1.4&		
x2513.7& 25	0.34&			x3116.0& 20	0.23&		
x2521.2& 25	0.17&			x3126.2& 15	0.43&		
x2540.7& 20	0.17&			x3142.6& 15	0.89&		

$^{175}_{70}Yb_{105}$-9

^{174}Yb(n,γ) E=thermal 1971Al27,1971Br17 (continued)

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

E_γ †	I_γ ‡	E_i(level)	J_i^π	E_f	J_f^π	Mult.
x3161.3& *15*	0.28&					
x3172.7& *15*	0.41&					
x3196.0&*b* *20*	0.21&					*c*
x3221.1& *20*	0.09&					
x3248.3& *20*	0.56&					
x3260.2&*b* *20*	0.32&					*c*
x3287.3& *15*	0.60&					
x3306.3& *15*	0.83&					
x3329.0& *20*	1.0&					
x3334.6& *25*	0.45&					
x3356.0& *15*	1.2&					
x3365.0& *25*	0.27&					
x3385.7& *20*	0.77&					
x3392.3& *25*	0.27&					
x3424.8& *15*	0.79&					
x3492.8& *20*	0.13&					
x3503.0& *20*	0.08&					
x3531.0& *15*	0.18&					
x3569.9& *15*	0.46&					
x3583.9& *25*	0.39&					
x3589.5& *20*	0.49&					
3632.3 *15*	2.6	(5822.5)	$1/2^+$	2190.1	$(1/2^-,3/2^-)$	(E1)*d*
3661.2 *15*	0.28	(5822.5)	$1/2^+$	2161.2	1/2,3/2,5/2	
3714.4 *15*	1.5	(5822.5)	$1/2^+$	2107.3	$(1/2^-,3/2^-)$	(E1)*d*
3740.8 *15*	0.28	(5822.5)	$1/2^+$	2081.6	(1/2,3/2)	
3757.3 *20*	0.07	(5822.5)	$1/2^+$	2065.1	1/2,3/2,5/2	
3776.2 *25*	0.26	(5822.5)	$1/2^+$	2046.2	1/2,3/2,5/2	
3782.9 *20*	0.37	(5822.5)	$1/2^+$	2039.5	1/2,3/2,5/2	
3823.8 *15*	0.17	(5822.5)	$1/2^+$	1998.6	1/2,3/2,5/2	
3842.1 *15*	0.48	(5822.5)	$1/2^+$	1980.3	1/2,3/2,5/2	
3854.2 *15*	0.64	(5822.5)	$1/2^+$	1968.2	1/2,3/2,5/2	
3884.0 *15*	4.7	(5822.5)	$1/2^+$	1937.47	$(1/2^-,3/2^-)$	(E1)*d*
3929.2 *15*	2.5	(5822.5)	$1/2^+$	1893.10	$(1/2^-,3/2^-)$	(E1)*d*
3978.2 *20*	0.13	(5822.5)	$1/2^+$	1844.2	1/2,3/2,5/2	
4129.6 *20*	0.17	(5822.5)	$1/2^+$	1692.8	1/2,3/2,5/2	
4138.6 *20*	0.15	(5822.5)	$1/2^+$	1683.8	1/2,3/2,5/2	
4161.9 *20*	0.09	(5822.5)	$1/2^+$	1660.5	1/2,3/2,5/2	
4174.7 *15*	0.57	(5822.5)	$1/2^+$	1647.7	1/2,3/2,5/2	
4195.2 *15*	0.38	(5822.5)	$1/2^+$	1627.48	$(1/2,3/2)^-$	
4272.9 *20*	0.04	(5822.5)	$1/2^+$	1549.5	1/2,3/2,5/2	
4325.1 *20*	0.06	(5822.5)	$1/2^+$	1497.32	$(3/2^+)$	
4354.0 *20*	0.04	(5822.5)	$1/2^+$	1468.872	$(3/2^+)$	
4454.7 *15*	0.17	(5822.5)	$1/2^+$	1368.111	$(5/2)^+$	
4465.9 *15*	0.26	(5822.5)	$1/2^+$	1356.493	$(1/2)^+$	
4700.8 *20*	0.05	(5822.5)	$1/2^+$	1121.334	$(5/2^+)$	
4830.0 *15*	1.6	(5822.5)	$1/2^+$	992.263	$3/2^-$	
4902.9 *20*	0.03	(5822.5)	$1/2^+$	920.027	$1/2^-$	
5011.2 *15*	1.2	(5822.5)	$1/2^+$	811.425	$(3/2)^-$	
5266.7 *15*	9.3	(5822.5)	$1/2^+$	556.087	$3/2^-$	(E1)*d*
5307.7 *15*	0.13	(5822.5)	$1/2^+$	514.869	$1/2^-$	

† Energies of primary γ rays are from 1971Al27. Energies of secondary γ rays are from 1971Br17, except as noted.
‡ Photons per 100 n captures given for primary γ rays (1971Al27) normalized to Iγ(5266.7γ)=9.3% relative to Iγ(7814 Ni line)=6.1% (1967Ba79). Total Iγ for the observed primary γ rays is only 30% of the n captures. Relative Iγ given for secondary γ rays (1971Br17).
# Complex line.
@ From 1967Bo19.
& From 1971Al27.
a Questionable transition.
b Possible doublet.

$^{175}_{70}Yb_{105}$-10

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

[c] From ^{175}Tm β^- decay.
[d] Based on γ-ray strength (reduced intensity).
[e] Assignment to ^{175}Yb is uncertain.
[f] From α(K)exp=0.09 *5* (1967Bo19).
[g] From α(K)exp=0.046 *20* (1967Bo19).
[h] From α(K)exp=0.030 *15* (1967Bo19).
[i] From ce(K):ce(L):ce(M) exp=340:80:27 (1967Bo19).
[j] From α(K)exp=0.008 *4* (1967Bo19).
[k] Multiply placed with undivided intensity.
[l] Placement of transition in the level scheme is uncertain.
[x] γ ray not placed in level scheme.

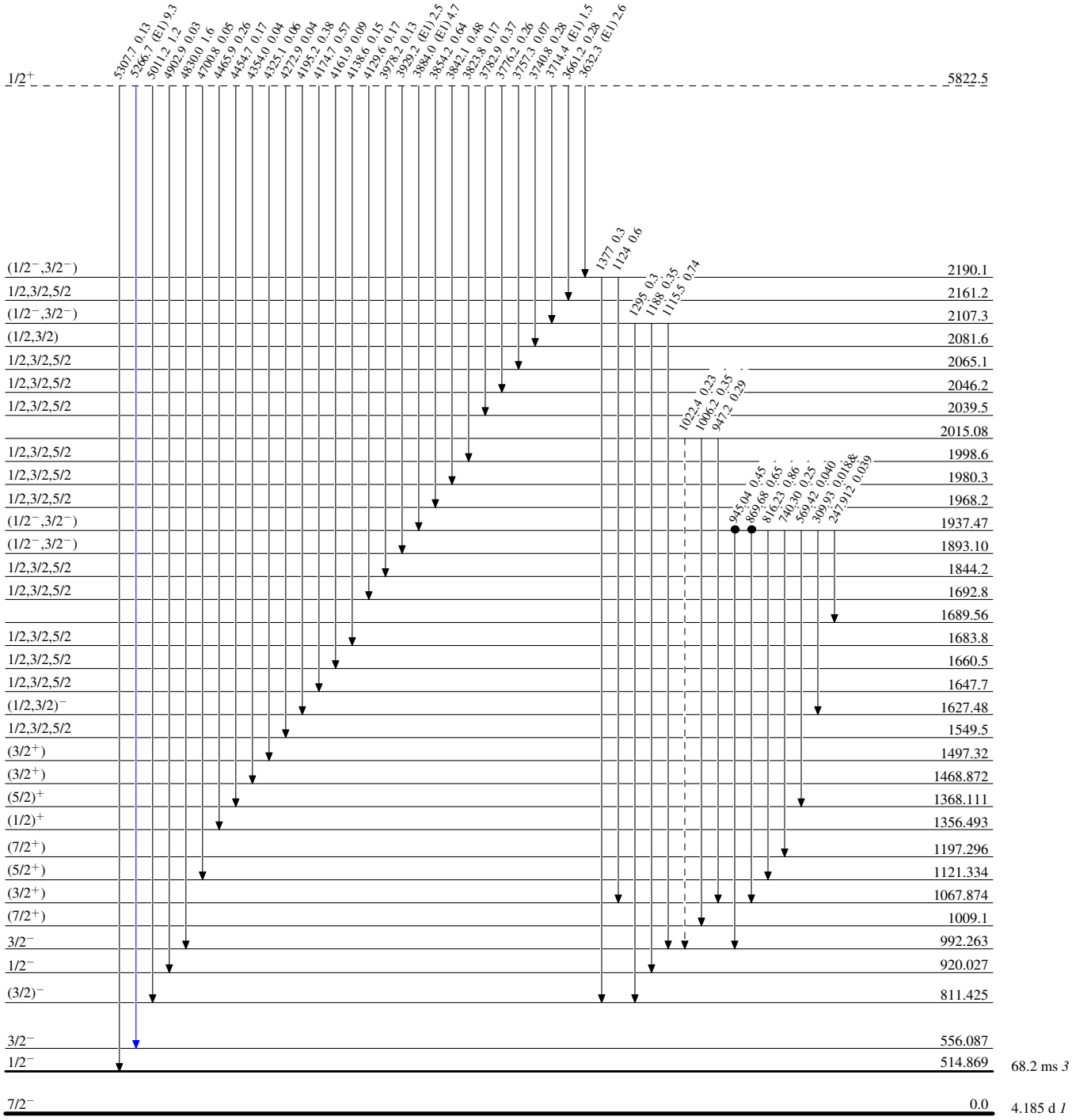
$^{175}_{70}Yb_{105}$-11

^{174}Yb(n,γ) E=thermal 1971Al27,1971Br17

Level Scheme

Intensities: Iγ per 100 N captures given for primary γ rays. Relative Iγ for secondary γ's
& Multiply placed: undivided intensity given

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



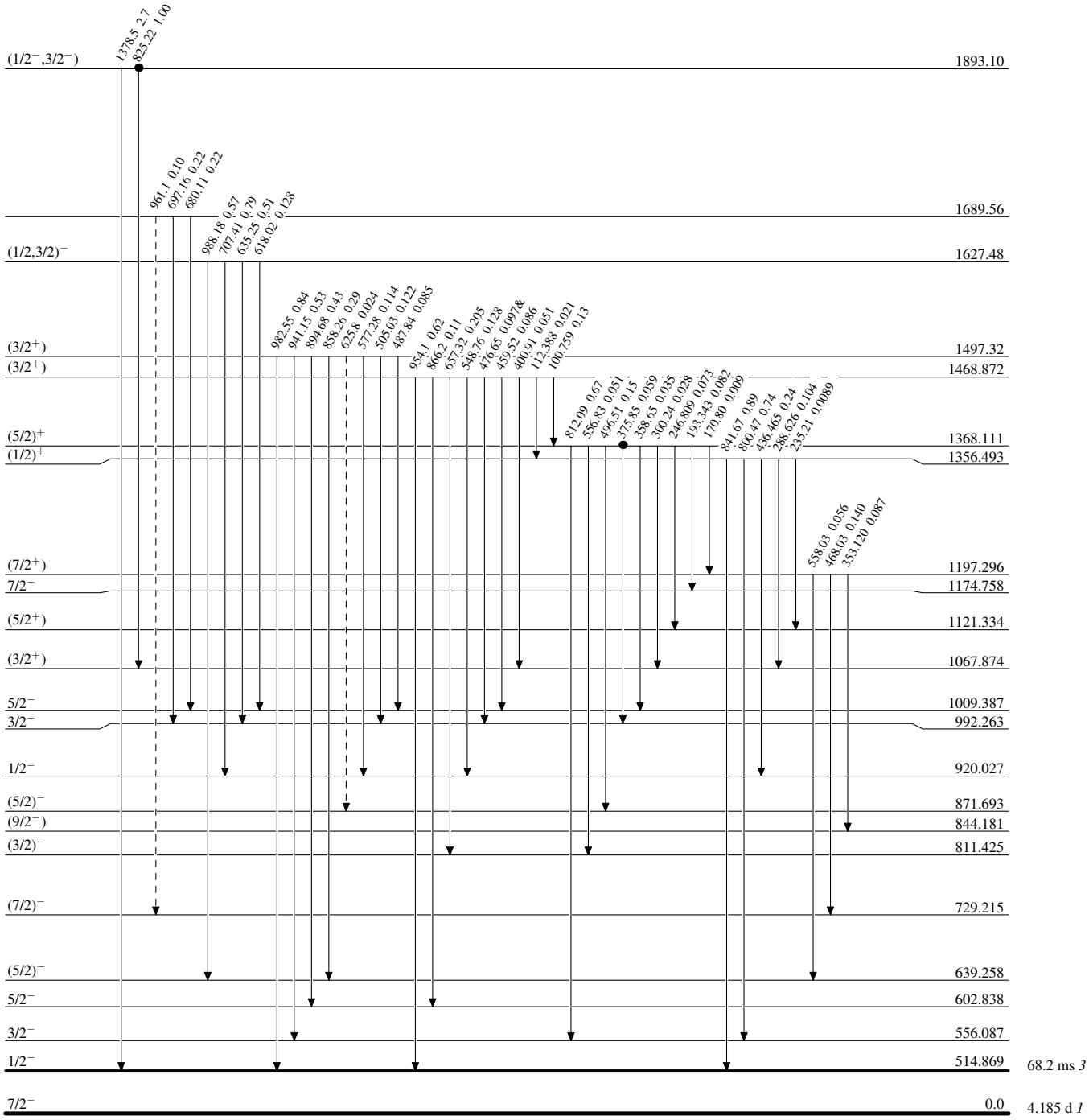
$^{175}_{70}Yb_{105}$

^{174}Yb(n,γ) E=thermal 1971Al27,1971Br17

Level Scheme (continued)

Intensities: Iγ per 100 N captures given for primary γ rays. Relative Iγ for secondary γ's
& Multiply placed: undivided intensity given

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



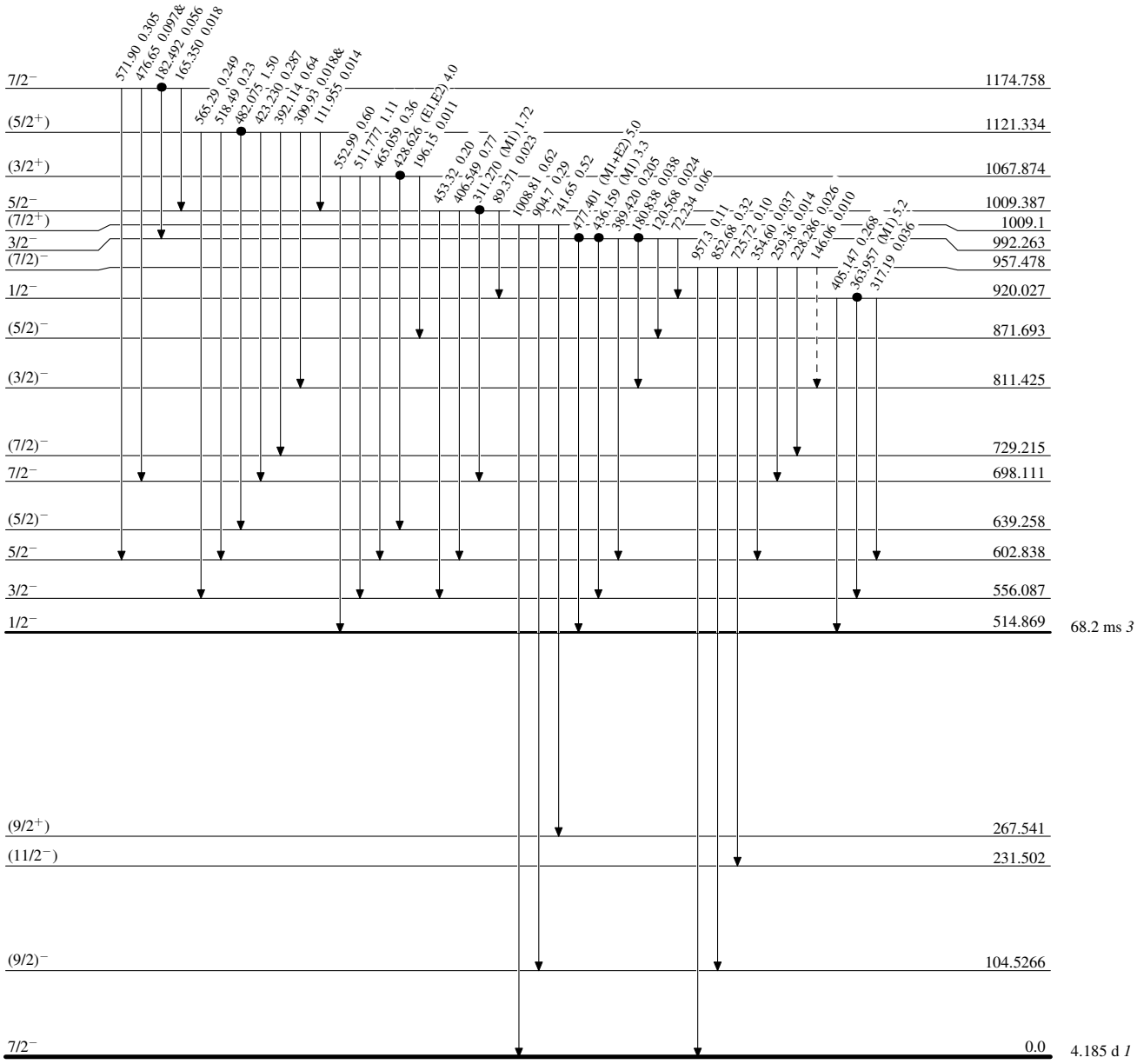
$^{175}_{70}Yb_{105}$

^{174}Yb(n,γ) E=thermal 1971Al27,1971Br17

Level Scheme (continued)

Intensities: Iγ per 100 N captures given for primary γ rays. Relative Iγ for secondary γ's
& Multiply placed: undivided intensity given

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



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

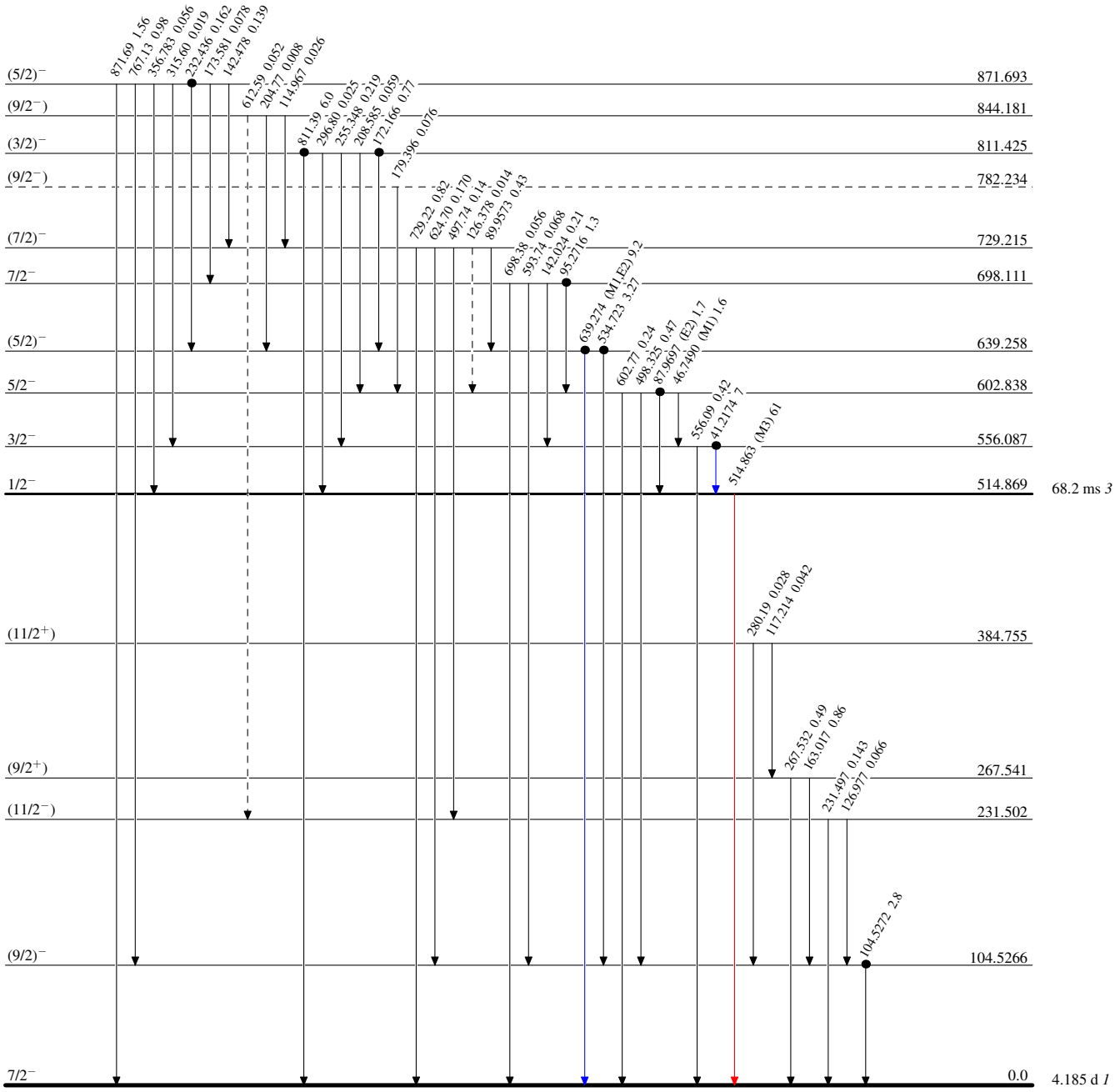
^{174}Yb(n,γ) E=thermal 1971Al27,1971Br17

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 given for primary γ rays. Relative Iγ for secondary γ's
& Multiply placed: undivided intensity given



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