Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin, E. A. Mccutchan	NDS 151,334 (2018)	30-Jun-2018

Q(β^-)=−1478.4 *19*; S(n)=6614.21 *1*; S(p)=6799.9 *8*; Q(α)=1559.5 *12* 2017Wa10
S(2n)=15071.9 *12*; S(2p)=12961.6 *12* (2017Wa10).
HFS data: see, e.g., 1981Li21, 1982Bu21, 1983Bl05, 1983Ma49, 1985Li06, 1987Mu09, 2002Zi04.
Isotope shift data: 2002Zi04, 2003Ba90.
g-factor calculations: 2002St11.
Mössbauer test of time-reversal symmetry in ^{171}Yb using M1+E2 67γ from ^{171}Tm β^- decay: 2007Ts10.
Level densities and/or radiative strength function: 2004Ag05, 2005Ag15.
α: Additional information 1.

^{171}Yb Levels

Cross Reference (XREF) Flags

A	^{171}Tm β^- decay	F	^{170}Yb(d,p), ^{172}Yb(d,t)	K	^{170}Er(α,3nγ) E=35,40 MeV
B	^{171}Lu ε decay (8.247 d)	G	^{171}Yb(γ,γ): Mossbauer	L	^{172}Yb(p,d)
C	^{170}Er(α,3nγ) E=34 MeV	H	Coulomb excitation	M	^{171}Yb(^{3}He,^{3}He′γ)
D	^{170}Yb(n,γ) E=thermal	I	^{172}Yb(^{3}He,α), ^{172}Yb(^{3}He,$\alpha\gamma$)	N	^{171}Yb(γ,X)
E	^{170}Yb(n,γ) E=resonance	J	^{173}Yb(p,t)		

E(level)†	J$^\pi$‡	T$_{1/2}$#	XREF	Comments
0.0[c]	1/2$^-$	stable	ABCDEFGH JKL	μ=+0.49367 *1* μ: optical pumping (1972Ol01); value relative to ^{23}Na. Other: +0.4949 *4* (1964Go06, nuclear magnetic resonance). J$^\pi$: EPR, optical spectroscopy (1976Fu06); L=1 in ^{170}Yb(d,p). Δ<r^2>(170-171)=0.08 *3*, Δ<r^2>(171-172)=0.086 *14* (1973Le16).
66.732[d] *2*	3/2$^-$	0.79 ns *5*	ABCDEfGHijKL	Q=−2.34 *7*; μ=0.350 *2* μ: Mossbauer effect (1966He09, 1966Gu07); value relative to μ=+0.49367 *1* for ^{171}Yb(0.0 level). Q: mossbauer effect (1971Pl03,2016St14). J$^\pi$: M1+E2 γ to 1/2$^-$. T$_{1/2}$: from B(E2) in Coulomb excitation and adopted γ-ray properties. Other values: 0.87 ns *10* (1966He09, Mossbauer); 0.81 ns *17* (1971AkZS, ce-ce(t) in ^{171}Lu ε decay (8.24 d)).
75.882[c] *2*	5/2$^-$	1.64 ns *16*	BCD fGHijKL	Q=−2.22 *7*; μ=+1.015 *5* μ: mossbauer effect (1970He25); value relative to μ=+0.49367 *1* for ^{171}Yb(0.0 level). Q: mossbauer effect (1971Pl03,2016St14). J$^\pi$: M1+E2 γ to 3/2$^-$; μ(=+1.015) agrees with μ from theory (=+1.2) for 5/2$^-$ 1/2[521] Nilsson state. T$_{1/2}$: ce-ce(t) in ^{171}Lu ε decay (8.24 d) (1971AkZS). Other values: 1.16 ns 7 (from B(E2) in Coulomb excitation and adopted γ-ray properties), 0.72 ns *10* (recoil distance in Coulomb excitation (1967As03)). Other: 1966Ka11.
95.282[f] *2*	7/2$^+$	5.25 ms *24*	BCD JK	%IT=100 J$^\pi$: E1 γ to 5/2$^-$, M1+E2 γ from 9/2$^+$. T$_{1/2}$: decay of 75.9γ (beam mechanically chopped) in ^{170}Er(α,3nγ) (1974Ha50). Other: 1968Lo10.
122.416[g] *2*	5/2$^-$	265 ns *20*	BCD F H JKL	J$^\pi$: E1 γ to 7/2$^+$, M1+E2 γ to 3/2$^-$. T$_{1/2}$: ceγ(t) in ^{171}Lu ε decay (8.24 d) (1968Lo10).
167.662[e] *3*	9/2$^+$		BC F IJK	J$^\pi$: L=4 in ^{172}Yb(^{3}He,α); strong population in ^{172}Yb(d,t) consistent

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Adopted Levels, Gammas (continued)

^{171}Yb Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	XREF	Comments
				with large cross section predicted for $9/2^+$ 7/2[633] state.
208.019[h] *4*	$7/2^-$[&]		BC F HIJKL	
230.631[d] *11*	$7/2^-$	155 ps *8*	BC F HIJKL	μ=0.83 *5* (2000St06) μ: thin-foil transient field IMPAC in Coulomb excitation.
246.617[c] *10*	$9/2^-$	149 ps *4*	BC F HIJKL	μ=1.53 *7* (2000St06) μ: thin-foil transient field IMPAC in Coulomb excitation.
259.070[f] *5*	$11/2^+$		BC K	Jπ: M1+E2 γ to $9/2^+$; energy agrees with expected energy (=260.5) of $11/2^+$ 7/2[633] state.
317.309[g] *4*	$9/2^-$[&]		BC F HIJKL	
368.91[e] *11*	$13/2^+$		C F IJK	Jπ: L=6 in ^{170}Yb(d,p) and ^{172}Yb(^{3}He,α); strong population in ^{172}Yb(d,t) consistent with large cross section predicted for $13/2^+$ 7/2[633] state.
449.599[h] *15*	$11/2^-$[&]		BC F IJKL	
487.29[d] *3*	$11/2^-$	21.39 ps *19*	BC F HIJK	μ=1.54 *8* (2000St06) μ: thin-foil transient field IMPAC in Coulomb excitation.
501.37[f] *13*	$(15/2^+)$		C jK	
509.32[c] *16*	$13/2^-$	21.3 ps *4*	C H jK	μ=2.31 *12* (2000St06) μ: thin-foil transient field IMPAC in Coulomb excitation.
604.38[g] *12*	$(13/2^-)$		C JK	
648.22[e] *13*	$(17/2^+)$		C I K	
766.3 *11*	$(3/2^+)$		D	Jπ: similarity to 860.1 level in ^{169}Er (population and decay) consistent with $3/2^+$.
780.32[h] *13*	$(15/2^-)$		C JK	
826.11[f] *15*	$(19/2^+)$		C i K	
833.08[d] *16*	$15/2^-$	4.3 ps *3*	C HijK	μ=2.10 *14* (2000St06) μ: thin-foil transient field IMPAC in Coulomb excitation.
835.082[i] *5*	$7/2^-$		B F ij	Jπ: E1 γ to $9/2^+$, M1+E2 γ to $5/2^-$.
860.16[c] *20*	$17/2^-$	4.19 ps *18*	C H K	μ=2.83 *15* (2000St06) μ: thin-foil transient field IMPAC in Coulomb excitation.
≈867			F	
876 *3*			F	
902.250[j] *20*	$3/2^-$		B f ij	Jπ: M1(+E2) γ to $1/2^-$; log $f^{1u}t$=9.31 from $7/2^+$.
907.2 *16*	1/2,3/2[a]		DEf ij	
935.261 *15*	$9/2^+$		B j	Jπ: M1 γ to $11/2^+$, M1+E2 γ to $7/2^+$. Possible 9/2[624] bandhead.
944.35 *3*	$5/2^-$		B ij	Jπ: M1+E2 γ to $5/2^-$, M1(+E2) γ to $3/2^-$; nuclear orientation data consistent only with 5/2 (1985Kr07).
948.371[i] *8*	$9/2^-$		B f i	Jπ: E1 γ to $11/2^+$, E1 γ to $7/2^+$.
953.0[s] *15*	$(1/2^-)$		D f j	Jπ: population by primary γ in ^{170}Yb(n,γ) E=thermal; energy agrees with expected position (=954.2) of $1/2^-$ 1/2[510] state.
958.31[j] *10*	$(5/2^-)$		B j	Jπ: γ to $1/2^-$, (E2) γ to $5/2^-$; log *ft*=9.33 from $7/2^+$; $5/2^-$ consistent with band assignment.
971[t] *3*	$(7/2^-)$		F i	Jπ: angular distributions, (^{3}He,α) cross sections, and (^{3}He,α)/(d,t) cross-section ratios in ^{172}Yb(^{3}He,α) consistent with $7/2^-$ 5/2[523], $9/2^-$ 5/2[523] and $11/2^-$ 5/2[523] assignments for 971, 1083, and 1204 levels.
976.38[g] *14*	$(17/2^-)$		C K	
980.91[q] *13*	$(13/2^+)$		C f K	Jπ: dipole γ to $11/2^+$ and γ to $13/2^+$; band assignment.
984.037[u] *21*	$(9/2)^+$		B f i	Jπ: E1 γ to $7/2^-$, (M1) γ to $11/2^+$.
988.2 *15*	$(1/2^-,3/2^-)$[b]		DEf j	

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Adopted Levels, Gammas (continued)

^{171}Yb Levels (continued)

E(level)†	Jπ‡	XREF	Comments
991.7[s] *11*	(3/2⁻)	D F j	Jπ: population by primary γ in ^{170}Yb(n,γ) E=thermal; dominant (d,p) cross section fits expectations for 3/2⁻ 1/2[510] state.
1004.77[e] *16*	(21/2⁺)	C K	
1024.626[j] *16*	7/2⁻	B F iJ	Jπ: M1+E2 γ to 7/2⁻, M1+E2 γ to 5/2⁻; nuclear orientation data consistent only with 7/2 (1985Kr07).
1039.4 *14*	(1/2⁻,3/2⁻)[b]	DEF i	
1052[s] *3*	(5/2⁻)	F J	Jπ: L=3 in ^{170}Yb(d,p); band structure and relative cross sections in (d,p) consistent with 5/2⁻ for 1052 level, 7/2⁻ for 1144 level, and 9/2⁻ for 1254 level.
1080.971 *24*	5/2⁻	B f ij	Jπ: M1+E2 γ to 7/2⁻, M1+E2 γ to 5/2⁻; nuclear orientation data consistent only with 5/2 (1985Kr07).
1083[t] *3*	(9/2⁻)	f ij	Jπ: see comment with 971 level.
1093.30[o] *3*	9/2⁺	B	Jπ: E1 γ to 7/2⁻, M1+E2 γ to 9/2⁺; nuclear orientation data consistent only with 9/2 (1985Kr07).
1114.03[r] *15*	(15/2⁺)	C F jK	
1119[u] *1*	(13/2⁺)	F Ij	Jπ: L=6 in ^{172}Yb(^{3}He,α); population in ^{172}Yb(d,t) consistent with cross section predicted for 13/2⁺ 5/2[642] state.
1127.68[j] *4*	(9/2⁻)	B	
1144[s] *3*	(7/2⁻)	F J	Jπ: see comment with 1052 level.
1175		I	
1188 *3*		F	
1190.43[h] *14*	(19/2⁻)	C K	
1204[t] *3*	(11/2⁻)	F IJ	Jπ: see comment with 971 level.
1234.29[f] *16*	(23/2⁺)	C K	
1244[@]		F IJ	
1254[s] *3*	(9/2⁻)	F	Jπ: see comment with 1052 level.
1263.63[d] *21*	19/2⁻	C H jK	μ=2.5 *3* (2000St06) μ: thin-foil transient field IMPAC in Coulomb excitation.
1265.86[q] *16*	(17/2⁺)	C jK	
1280 *3*		F	
1290 *3*		F	
1294.54[c] *25*	(21/2⁻)	C H K	μ=3.1 *3* (2000St06) μ: thin-foil transient field IMPAC in Coulomb excitation.
≈1300		F i	
1320 *3*		F i	
1331.2[v] *13*	(3/2⁻)	DEF j	Jπ: population by primary γ in ^{170}Yb(n,γ) E=thermal; possible 3/2[512] bandhead. 5/2⁻ 3/2[512] and 7/2⁻ 3/2[512] for 1395 and 1486 levels follow from energy fits and cross-section systematics.
1343[@] *5*		EF ij	
≈1356		F i	
1377.505[p] *14*	7/2⁻	B	Jπ: E1 γ to 9/2⁺, M1 γ to 5/2⁻.
1388.1 *15*	(1/2,3/2)[a]	D F j	
1395[v] *3*	(5/2⁻)	F j	Jπ: see comment with 1331 level.
1402 *3*		F	
1407 *3*	(13/2)⁺	I	Jπ: L=6 in ^{172}Yb(^{3}He,α); 13/2⁺ consistent with (^{3}He,α) cross section.
1421.45[g] *15*	(21/2⁻)	C K	
1434.9 *15*	1/2,3/2[a]	D F j	
1435.90[e] *18*	(25/2⁺)	C K	
1436.63[r] *17*	(19/2⁺)	C jK	
1460 *3*		F I	
1486[v] *1*	(7/2⁻)	F ij	Jπ: see comment with 1331 level.
1492.3 *9*	(1/2,3/2)[a]	D ij	

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Adopted Levels, Gammas (continued)

^{171}Yb Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
1513 *5*	5/2⁻	J	Jπ: L(p,t)=0 for 5/2⁻ target.
1517.2[l] *4*	(17/2⁺)	K	
1518 *6*		F i	
1524 *6*		F i	
1536.9 *14*	1/2,3/2[a]	DE	
1559 *6*		F I	
1588 *6*		F j	
1599 *6*		F j	
1614.4[k] *3*	(19/2⁺)	K	
1626[@] *2*		F ij	
1626.17[q] *18*	(21/2⁺)	C jK	
1638 *6*		F i	
1649 *7*		iJ	
1656.41[n] *20*	(19/2⁺)	K	
1662 *6*		F i	
1664.87[h] *17*	(23/2⁻)	K	
1665.22[m] *24*	(21/2⁺)	K	
1672[@] *1*		F J	
1702.6 *25*	1/2,3/2[a]	D J	
1716.5 *21*	1/2,3/2[a]	D F	
1724.43[f] *19*	(27/2⁺)	C K	
1733[@] *3*		F J	
1764[@] *1*		F J	
1771 *6*		F I	
1773.3 *6*	(23/2⁺)	K	
1774.2[d] *3*	(23/2⁻)	H K	
1807.6[c] *3*	(25/2⁻)	C H K	
1829.0 *22*	1/2,3/2[a]	D J	
1834.79[r] *21*	(23/2⁺)	C K	
1845 *7*		J	
1871.5 *15*	(1/2⁻,3/2⁻)[b]	D J	
1884.8[l] *4*	(21/2⁺)	K	
1888.8 *21*	(1/2⁻,3/2⁻)[b]	De j	
1913.2 *19*	1/2,3/2[a]	De j	
1919.57[g] *18*	(25/2⁻)	K	
1938.18[e] *21*	(29/2⁺)	K	
1971.7 *15*	1/2,3/2[a]	D J	
1986.1[k] *3*	(23/2⁺)	K	
1995 *10*	(5/2⁻)	J	Jπ: L(p,t)=(0) for 5/2⁻ target.
2006.8 *15*	1/2,3/2[a]	D	
2049.1 *22*	1/2,3/2[a]	D	
2059.89[q] *20*	(25/2⁺)	K	
2069.9[n] *3*	(23/2⁺)	K	
2087.3[m] *4*	(25/2⁺)	K	
2108 *10*		J	
2138.4 *23*	(1/2⁻,3/2⁻)[b]	D	
2179.83[h] *21*	(27/2⁻)	K	
2261.4 *20*	1/2,3/2[a]	D	
2290.6 *21*	1/2,3/2[a]	D J	

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Adopted Levels, Gammas (continued)

^{171}Yb Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
2293.86[f] 25	(31/2+)	K	
2303 10		J	
2306.14[r] 25	(27/2+)	K	
2318.7[l] 4	(25/2+)	K	
2334.3 6	(27/2+)	K	
2358.8 6	(27/2+)	K	
2359.8[d] 4	(27/2−)	H K	
2373.4 21	(1/2−,3/2−)[b]	D J	
2392.9[c] 3	(29/2−)	H K	
2428.5[k] 3	(27/2+)	K	
2446.9 18	1/2,3/2[a]	D	
2447.23[g] 20	(29/2−)	K	
2468.0 20	(1/2−,3/2−)[b]	D j	
2479.0 20	(1/2−,3/2−)[b]	D j	
2494.5 21	(1/2−,3/2−)[b]	D	
2509.0[e] 3	(33/2+)	K	
2566.6[q] 3	(29/2+)	K	
2578.1[n] 4	(27/2+)	K	
2596.3[m] 7	(29/2+)	K	
2642 10		J	
2717.10[h] 25	(31/2−)	K	
2820.8[l] 4	(29/2+)	K	
2846.1[r] 3	(31/2+)	K	
2939.1[f] 3	(35/2+)	K	
2944.6[k] 4	(31/2+)	K	
2984.0[g] 4	(33/2−)	K	
3015.1[d] 6	(31/2−)	H K	XREF: H(3025).
3059.0[c] 4	(33/2−)	H K	XREF: H(3048).
3142.7[q] 5	(33/2+)	K	
3146.5[e] 4	(37/2+)	K	
3281.8[h] 3	(35/2−)	K	
3389.8[l] 7	(33/2+)	K	
3400 80		I M	Pygmy resonance; not a discete level. E(level): weighted average of 3.54 MeV *10* from (^{3}He,^{3}He′γ) and 3.35 MeV *6* from 2001Vo05 in (^{3}He,α). Γ: 0.94 MeV *12*, weighted average of 0.91 MeV *18* from (^{3}He,^{3}He′γ) and 0.97 MeV *16* from (^{3}He,α) (2001Vo05).
3448.0[r] 6	(35/2+)	K	
3538.3[k] 6	(35/2+)	K	
3567.6[g] 5	(37/2−)	K	
3656.5[f] 6	(39/2+)	K	
3746.7[d] 8	(35/2−)	K	
3772.5[c] 6	(37/2−)	K	
3779.1[q] 7	(37/2+)	K	
3848.0[e] 6	(41/2+)	K	
3882.7[h] 5	(39/2−)	K	
4103.0[r] 8	(39/2+)	K	
4197.6[g] 11	(41/2−)	K	

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Adopted Levels, Gammas (continued)

^{171}Yb Levels (continued)

E(level)[†]	Jπ[‡]	XREF
4442.5[f] 8	(43/2+)	K
4468.1?[q] 12	(41/2+)	K
4527.7[h] 11	(43/2−)	K
4612.1[e] 8	(45/2+)	K
4812.0[r] 10	(43/2+)	K
4879.7?[g] 15	(45/2−)	K

[†] From least-squares fit to adopted Eγ (omitting 862γ and 926γ), except where noted or where cross references clearly indicate other source.
[‡] Values given without comment are from (α,3nγ) E=35,40 MeV, based on γ multipolarity data and deduced band structure.
[#] From RDM in Coulomb excitation, except as noted.
[@] Average from ^{170}Yb(d,p), ^{172}Yb(d,t), ^{172}Yb(^{3}He,α), and/or ^{173}Yb(p,t).
[&] Cascade of M1+E2 γ's to 5/2−; spectroscopic factors in ^{170}Yb(d,p),^{172}Yb(d,t) consistent with 7/2−, 9/2−, 11/2− sequence.
[a] From population by primary γ in ^{170}Yb(n,γ) E=thermal.
[b] From population by (E1) primary γ in ^{170}Yb(n,γ) E=thermal.
[c] Band(A): 1/2[521], α=+1/2 band (1998Ar08). α=12.1, β=−4.5, a=0.85 (1/2, 3/2, 5/2, 7/2, 9/2 levels).
[d] Band(a): 1/2[521], α=−1/2 band (1998Ar08). For band parameters, see comment on signature partner band.
[e] Band(B): 7/2[633], α=+1/2 band (1998Ar08). α=7.8, β=13.4 (7/2, 9/2, 11/2 levels).
[f] Band(b): 7/2[633], α=−1/2 band (1998Ar08). For band parameters, see comment on signature partner band.
[g] Band(C): 5/2[512], α=+1/2 band (1998Ar08). α=12.3, β=−5.4 (5/2, 7/2, 9/2 levels).
[h] Band(c): 5/2[512], α=−1/2 band (1998Ar08). For band parameters, see comment on signature partner band.
[i] Band(D): 7/2[514] band. (α=12.6 (7/2, 9/2 levels)).
[j] Band(E): 3/2[521] band (+ γ-vibration). (α=12.4, β=−145 (3/2, 5/2, 7/2 levels)).
[k] Band(f): α=−1/2 band (1998Ar08). Probable 1/2[521] + Octupole vibration band.
[l] Band(F): α=+1/2 band (1998Ar08). Probable 1/2[521] + Octupole vibration band.
[m] Band(G): α=+1/2 band (1998Ar08). Probably involves $i_{13/2}$ neutron.
[n] Band(g): α=−1/2 band (1998Ar08). Probably involves $i_{13/2}$ neutron.
[o] Band(H): Possible 3/2[651] band.
[p] Band(I): 7/2[503] band.
[q] Band(J): K^{π}=13/2+, ν(7/2[633])(5/2[512])(1/2[521]), α=+1/2 band. A=10.3, B=−4.2 (11/2, 13/2, 15/2 levels). J is 1 unit lower and π=− in (α,3nγ) E=34 MeV, where band was tentatively assigned as 11/2[505].
[r] Band(j): K^{π}=13/2+, ν(7/2[633])(5/2[512])(1/2[521]), α=−1/2 band. A=10.3, B=−4.2 (11/2, 13/2, 15/2 levels). J is 1 unit lower and π reversed in (α,3nγ) E=34 MeV, where band was tentatively assigned as 11/2[505].
[s] Band(K): 1/2[510] band (+ γ-vibration). α=12.1, β=21.7, a=0.001 (1/2, 3/2, 5/2, 7/2, 9/2 levels).
[t] Band(L): 5/2[523] band. α=14.5, β=−72 (7/2, 9/2, 11/2 levels).
[u] Band(M): 5/2[642] band. α=5.6 (9/2, 13/2 levels). J=5/2 member not identified; see 1993Dz03 for discussion of its possible energy (735 *5* or 876 *3*).
[v] Band(N): Possible 3/2[512] band. α=12.7, β=16.7 (3/2, 5/2, 7/2 levels).

Adopted Levels, Gammas (continued)

$\gamma(^{171}Yb)$

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[†]	δ[†]	α	Comments
66.732	3/2$^-$	66.731 *2*	100	0.0	1/2$^-$	M1+E2	+0.684 *17*	12.60 *19*	α(K)=6.66 *13*; α(L)=4.55 *13*; α(M)=1.10 *3*; α(N)=0.252 *7*; α(O)=0.0301 *8*; α(P)=0.000413 *8* B(E2)(W.u.)=225 *17*; B(M1)(W.u.)=0.0047 *4* δ: magnitude from subshell ratios in ε decay, sign from $\gamma(\theta)$ in Coulomb excitation. Nuclear orientation in ε decay favors negative sign, but adopted sign supported by δ for three other ΔJ=1 transitions in g.s. band.
75.882	5/2$^-$	9.149 *1*	2.48 *23*	66.732	3/2$^-$	M1+E2	0.016 *+4−5*	160 *10*	B(E2)(W.u.)=42 *22*; B(M1)(W.u.)=0.030 *5*
		75.889 *5*	100.0 *13*	0.0	1/2$^-$	E2		9.60	α(K)=1.604 *23*; α(L)=6.11 *9*; α(M)=1.508 *22*; α(N)=0.344 *5*; α(O)=0.0391 *6*; α(P)=7.98×10^{-5} *12* B(E2)(W.u.)=167 *18*
95.282	7/2$^+$	19.394 *2*	100	75.882	5/2$^-$	E1		5.57	α(L)=4.33 *6*; α(M)=1.001 *14*; α(N)=0.221 *3*; α(O)=0.0231 *4*; α(P)=0.000527 *8* B(E1)(W.u.)=8.7×10^{-10} *5*
122.416	5/2$^-$	27.133 *1*	63.5 *12*	95.282	7/2$^+$	E1		2.22	α(L)=1.727 *25*; α(M)=0.395 *6*; α(N)=0.0881 *13*; α(O)=0.00990 *14*; α(P)=0.000259 *4* B(E1)(W.u.)=3.6×10^{-6} *3*
		46.543 *5*	13.8 *6*	75.882	5/2$^-$	M1+E2	0.127 *13*	6.4 *3*	α(L)=4.99 *22*; α(M)=1.14 *6*; α(N)=0.266 *12*; α(O)=0.0362 *14*; α(P)=0.001581 *23* B(E2)(W.u.)=0.052 *12*; B(M1)(W.u.)=1.55×10^{-5} *17*
		55.689 *2*	100.0 *16*	66.732	3/2$^-$	M1+E2	0.056 *6*	3.15	α(L)=2.45 *4*; α(M)=0.551 *9*; α(N)=0.1292 *21*; α(O)=0.0183 *3*; α(P)=0.000944 *14* B(E2)(W.u.)=0.031 *7*; B(M1)(W.u.)=6.6×10^{-5} *6*
		122.37 *5*	0.96 *6*	0.0	1/2$^-$	[E2]		1.502	α(K)=0.632 *9*; α(L)=0.665 *10*; α(M)=0.1634 *23*; α(N)=0.0373 *6*; α(O)=0.00433 *7* α(P)=2.68×10^{-5} *4* B(E2)(W.u.)=0.00183 *19*
167.662	9/2$^+$	72.380 *2*	100	95.282	7/2$^+$	M1+E2	−0.32 *3*	8.86 *14*	α(K)=6.64 *13*; α(L)=1.71 *11*; α(M)=0.40 *3*; α(N)=0.093 *7*; α(O)=0.0121 *7*; α(P)=0.000407 *8* E_γ: other: 72.8 *2* in (α,3nγ) E=35, 40 MeV.
208.019	7/2$^-$	85.602 *3*	100.0 *13*	122.416	5/2$^-$	M1+E2	−0.224 *25*	5.31	α(K)=4.27 *7*; α(L)=0.81 *4*; α(M)=0.185 *8*; α(N)=0.0432 *18*; α(O)=0.00590 *20* α(P)=0.000260 *5*
		112.70 *14*	0.45 *5*	95.282	7/2$^+$	[E1]		0.250	α(K)=0.207 *3*; α(L)=0.0334 *5*; α(M)=0.00747 *11*; α(N)=0.001722 *25*; α(O)=0.000228 *4* α(P)=9.28×10^{-6} *14*
230.631	7/2$^-$	154.753 *11*	53.8 *16*	75.882	5/2$^-$	M1+E2	+0.521[b] *16*	0.905 *14*	α(K)=0.714 *12*; α(L)=0.1477 *24*; α(M)=0.0341 *6*; α(N)=0.00793 *13*; α(O)=0.001064 *17* α(P)=4.23×10^{-5} *7* B(E2)(W.u.)=33 *3*; B(M1)(W.u.)=0.0064 *5*

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Adopted Levels, Gammas (continued)

γ(^{171}Yb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[†]	δ[†]	α	Comments
									I_γ: other: 41 *5* in (α,3nγ) E=35, 40 MeV, 37.9 *6* in Coulomb excitation. δ: other: 0.71 *21* from ε decay.
230.631	7/2$^-$	164.2 *2*	100 *8*	66.732	3/2$^-$	E2		0.526	α(K)=0.288 *5*; α(L)=0.182 *3*; α(M)=0.0444 *7*; α(N)=0.01016 *16*; α(O)=0.001204 *18* α(P)=1.284×10^{-5} *19* B(E2)(W.u.)=213 *23* E_γ: from (α,3nγ) E=35, 40 MeV. Other Eγ: 163.847 *5* for doublet in ε decay.
246.617	9/2$^-$	16.0	0.152[&] *3*	230.631	7/2$^-$	[M1]		122.1	α(L)=95.0 *14*; α(M)=21.4 *3*; α(N)=5.01 *7*; α(O)=0.714 *10*; α(P)=0.0378 *6* B(M1)(W.u.)=0.033 *7* E_γ: from level energy difference; Eγ not measured.
		170.732 *10*	100[&]	75.882	5/2$^-$	E2		0.459	α(K)=0.258 *4*; α(L)=0.1542 *22*; α(M)=0.0375 *6*; α(N)=0.00859 *12*; α(O)=0.001021 *15* α(P)=1.162×10^{-5} *17* B(E2)(W.u.)=282 *8*
259.070	11/2$^+$	91.408 *3*	100.0 *19*	167.662	9/2$^+$	M1+E2	−0.281 *16*	4.38	α(K)=3.47 *6*; α(L)=0.705 *19*; α(M)=0.162 *5*; α(N)=0.0377 *11*; α(O)=0.00510 *12* α(P)=0.000211 *4*
		164.1 *2*	37 *4*	95.282	7/2$^+$	E2		0.527	α(K)=0.288 *5*; α(L)=0.183 *3*; α(M)=0.0445 *7*; α(N)=0.01019 *16*; α(O)=0.001207 *18* α(P)=1.286×10^{-5} *19* E_γ: from (α,3nγ) E=35, 40 MeV. Other Eγ: 163.847 *5* for doublet in ε Iγ; other: 94 *10* in (α,3nγ) E=35, 40 MeV.
317.309	9/2$^-$	109.289 *3*	100 *3*	208.019	7/2$^-$	M1+E2	−0.27 *4*	2.60	α(K)=2.10 *4*; α(L)=0.387 *17*; α(M)=0.088 *5*; α(N)=0.0206 *10*; α(O)=0.00283 *10* α(P)=0.000127 *3*
		149.63 *5*	0.75 *12*	167.662	9/2$^+$	[E1]		0.1182	α(K)=0.0985 *14*; α(L)=0.01536 *22*; α(M)=0.00343 *5*; α(N)=0.000794 *12* α(O)=0.0001068 *15*; α(P)=4.60×10^{-6} *7*
		194.896 *7*	29 *3*	122.416	5/2$^-$	E2		0.293	α(K)=0.1775 *25*; α(L)=0.0884 *13*; α(M)=0.0214 *3*; α(N)=0.00491 *7*; α(O)=0.000590 *9* α(P)=8.25×10^{-6} *12*
		222.06 *5*	1.42 *16*	95.282	7/2$^+$				I_γ: other: 98 *13* in (α,3nγ) E=35, 40 MeV.
368.91	13/2$^+$	110.0[a] *2*	100[a] *5*	259.070	11/2$^+$	(M1+E2)[a]		2.40 *18*	α(K)=1.48 *67*; α(L)=0.70 *38*; α(M)=0.170 *96*; α(N)=0.039 *22*; α(O)=0.0047 *23* α(P)=8.3×10^{-5} *49*
		201.4[a] *2*	72[a] *4*	167.662	9/2$^+$	(E2)[a]		0.262	α(K)=0.1617 *23*; α(L)=0.0772 *12*; α(M)=0.0187 *3*;

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Adopted Levels, Gammas (continued)

γ(^{171}Yb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[†]	δ[†]	α	Comments
									α(N)=0.00428 *7*; α(O)=0.000517 *8* α(P)=7.57×10^{-6} *11*
449.599	11/2$^-$	132.255 *19*	100 *5*	317.309	9/2$^-$	M1+E2	1.4 *+21−6*	1.26 *11*	α(K)=0.77 *21*; α(L)=0.38 *8*; α(M)=0.091 *20*; α(N)=0.021 *5*; α(O)=0.0025 *5*; α(P)=4.1×10^{-5} *15*
		241.73 *5*	68 *4*	208.019	7/2$^-$	(E2)		0.1446	α(K)=0.0964 *14*; α(L)=0.0371 *6*; α(M)=0.00889 *13*; α(N)=0.00204 *3*; α(O)=0.000251 *4* α(P)=4.71×10^{-6} *7* I$_\gamma$: other: 115 *14* in (α,3nγ) E=35, 40 MeV for Eγ=241.9 *2*.
487.29	11/2$^-$	240.63 *8*	16.0 *5*	246.617	9/2$^-$	M1+E2[b]	+0.50[b] *4*	0.258 *6*	α(K)=0.211 *5*; α(L)=0.0365 *6*; α(M)=0.00828 *12*; α(N)=0.00194 *3*; α(O)=0.000268 *4* α(P)=1.26×10^{-5} *3* B(E2)(W.u.)=14.1 *19*; B(M1)(W.u.)=0.0072 *4* I$_\gamma$: weighted average of 15.8 *5* in Coulomb excitation and 17.2 *12* from (α,3nγ) E=35,40 MeV.
		256.65 *3*	100[&]	230.631	7/2$^-$	E2		0.1196	α(K)=0.0814 *12*; α(L)=0.0294 *5*; α(M)=0.00702 *10*; α(N)=0.001616 *23*; α(O)=0.000200 *3* α(P)=4.03×10^{-6} *6* B(E2)(W.u.)=319 *4*
501.37	(15/2$^+$)	132.7[a] *2*	45[a] *4*	368.91	13/2$^+$	D[a]			
		242.3[a] *2*	100.0[a] *25*	259.070	11/2$^+$	(E2)[a]		0.1436	α(K)=0.0957 *14*; α(L)=0.0367 *6*; α(M)=0.00881 *13*; α(N)=0.00203 *3*; α(O)=0.000249 *4* α(P)=4.68×10^{-6} *7*
509.32	13/2$^-$	22.0	0.059[&] *5*	487.29	11/2$^-$	[M1]		47.4	α(L)=36.9 *6*; α(M)=8.28 *12*; α(N)=1.94 *3*; α(O)=0.277 *4*; α(P)=0.01468 *21* B(M1)(W.u.)=0.050 *9* E$_\gamma$: from level energy difference; Eγ not measured.
		262.7 *2*	100[&]	246.617	9/2$^-$	E2		0.1112	α(K)=0.0763 *11*; α(L)=0.0268 *4*; α(M)=0.00641 *10*; α(N)=0.001476 *22*; α(O)=0.000183 *3* α(P)=3.79×10^{-6} *6* B(E2)(W.u.)=330 *7* E$_\gamma$: from (α,3nγ) E=35, 40 MeV; mult from Coulomb excitation.
604.38	(13/2$^-$)	154.9[a] *2*	66[a] *7*	449.599	11/2$^-$	D[a]			
		287.0[a] *2*	100[a] *6*	317.309	9/2$^-$	(E2)[a]		0.0846	α(K)=0.0596 *9*; α(L)=0.0192 *3*; α(M)=0.00457 *7*; α(N)=0.001053 *15*; α(O)=0.0001317 *19* α(P)=3.02×10^{-6} *5*
		345.4[a] *5*	10[a] *3*	259.070	11/2$^+$	D[a]			

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Adopted Levels, Gammas (continued)

γ(^{171}Yb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[†]	δ[†]	α	Comments
648.22	(17/2$^+$)	147.0[a] *2*	41[a] *3*	501.37	(15/2$^+$)	(M1+E2)[a]	−0.37 *+10−13*	1.08 *4*	α(K)=0.88 *5*; α(L)=0.162 *13*; α(M)=0.037 *4*; α(N)=0.0086 *8*; α(O)=0.00118 *7*; α(P)=5.3×10^{-5} *4* δ: from (α,3nγ) E=34 MeV.
		279.2[a] *2*	100.0[a] *18*	368.91	13/2$^+$	(E2)[a]		0.0920	α(K)=0.0643 *9*; α(L)=0.0213 *3*; α(M)=0.00507 *8*; α(N)=0.001169 *17*; α(O)=0.0001457 *21* α(P)=3.24×10^{-6} *5*
766.3	(3/2$^+$)	669.6[c@] *15*	<195[@]	95.282	7/2$^+$				
		691.1[@] *15*	100[@]	75.882	5/2$^-$				
		698.9[@] *15*	93[@]	66.732	3/2$^-$				
780.32	(15/2$^-$)	176.1[a] *2*	47.9[a] *21*	604.38	(13/2$^-$)	(M1)[a]		0.678	α(K)=0.568 *9*; α(L)=0.0861 *13*; α(M)=0.0193 *3*; α(N)=0.00453 *7*; α(O)=0.000648 *10* α(P)=3.46×10^{-5} *5* E$_\gamma$: other: 174.8 *5* in (α,3nγ) E=34 MeV.
		330.5[a] *2*	100[a] *4*	449.599	11/2$^-$	(E2)[a]		0.0554	α(K)=0.0405 *6*; α(L)=0.01149 *17*; α(M)=0.00271 *4*; α(N)=0.000627 *9*; α(O)=7.96×10^{-5} *12* α(P)=2.11×10^{-6} *3*
		411.4[a] *5*	8.3[a] *21*	368.91	13/2$^+$				
826.11	(19/2$^+$)	177.9[a] *2*	29[a] *3*	648.22	(17/2$^+$)	(M1+E2)[a]	−0.18 *8*	0.651 *13*	α(K)=0.542 *13*; α(L)=0.0852 *19*; α(M)=0.0191 *5*; α(N)=0.00449 *11*; α(O)=0.000637 *12* α(P)=3.29×10^{-5} *9* δ: from (α,3nγ) E=34 MeV.
		324.8[a] *2*	100.0[a] *12*	501.37	(15/2$^+$)	(E2)[a]		0.0583	α(K)=0.0425 *6*; α(L)=0.01222 *18*; α(M)=0.00289 *4*; α(N)=0.000667 *10*; α(O)=8.45×10^{-5} *12* α(P)=2.20×10^{-6} *4*
833.08	15/2$^-$	323.9[a] *2*	14.9[a] *17*	509.32	13/2$^-$	M1+E2[b]	≈+0.5[b]	≈0.1143	α(K)≈0.0946; α(L)≈0.01533; α(M)≈0.00346; α(N)≈0.000810 α(O)≈0.0001138; α(P)≈5.63×10^{-6} B(E2)(W.u.)≈16; B(M1)(W.u.)≈0.015 I$_\gamma$: other: 9.4 *10* from Coulomb excitation.
		345.7[a] *2*	100.0[a] *23*	487.29	11/2$^-$	E2		0.0486	α(K)=0.0359 *5*; α(L)=0.00980 *14*; α(M)=0.00231 *4*; α(N)=0.000534 *8*; α(O)=6.81×10^{-5} *10* α(P)=1.88×10^{-6} *3* B(E2)(W.u.)=3.9×10^2 *3* Mult.: from Coulomb excitation.
835.082	7/2$^-$	517.773 *4*	0.714 *12*	317.309	9/2$^-$	M1+E2	+0.53 *8*	0.0328 *12*	α(K)=0.0274 *11*; α(L)=0.00420 *12*;

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Adopted Levels, Gammas (continued)

γ(^{171}Yb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[†]	δ[†]	α	Comments
									α(M)=0.00094 *3*; α(N)=0.000221 *6*; α(O)=3.14×10^{-5} *10* α(P)=1.63×10^{-6} *7*
835.082	7/2$^-$	627.062 *12*	1.75 *3*	208.019	7/2$^-$	M1+E2	+1.17 *+7−6*	0.0156 *5*	α(K)=0.0129 *4*; α(L)=0.00208 *5*; α(M)=0.000470 *11*; α(N)=0.0001099 *24*; α(O)=1.54×10^{-5} *4* α(P)=7.52×10^{-7} *22*
		667.422 *11*	23.1 *4*	167.662	9/2$^+$	E1		0.00329	α(K)=0.00279 *4*; α(L)=0.000390 *6*; α(M)=8.65×10^{-5} *13*; α(N)=2.02×10^{-5} *3*; α(O)=2.86×10^{-6} *4* α(P)=1.485×10^{-7} *21*
		712.670 *16*	2.37 *3*	122.416	5/2$^-$	M1+E2	−1.62 *+10−11*	0.0101 *3*	α(K)=0.00837 *24*; α(L)=0.00136 *4*; α(M)=0.000306 *7*; α(N)=7.16×10^{-5} *17*; α(O)=1.000×10^{-5} *24* α(P)=4.82×10^{-7} *15*
		739.793 *12*	100.0 *14*	95.282	7/2$^+$	E1		0.00267	α(K)=0.00227 *4*; α(L)=0.000316 *5*; α(M)=6.99×10^{-5} *10*; α(N)=1.634×10^{-5} *23*; α(O)=2.32×10^{-6} *4* α(P)=1.212×10^{-7} *17*
		759.21 *3*	0.049 *3*	75.882	5/2$^-$	(E2)		0.00664	α(K)=0.00544 *8*; α(L)=0.000935 *13*; α(M)=0.000212 *3*; α(N)=4.95×10^{-5} *7*; α(O)=6.81×10^{-6} *10* α(P)=3.05×10^{-7} *5*
860.16	17/2$^-$	27.1[d]	<0.25[&]	833.08	15/2$^-$	[M1]		25.6	α(L)=19.9 *3*; α(M)=4.46 *7*; α(N)=1.046 *15*; α(O)=0.1492 *21*; α(P)=0.00791 *11* B(M1)(W.u.)=0.3 *3* Eγ: from level energy difference; Eγ not measured.
		350.7 *2*	100[&]	509.32	13/2$^-$	(E2)		0.0467	α(K)=0.0346 *5*; α(L)=0.00932 *14*; α(M)=0.00220 *4*; α(N)=0.000507 *8*; α(O)=6.48×10^{-5} *10* α(P)=1.81×10^{-6} *3* B(E2)(W.u.)=418 *23* Eγ: from (α,3nγ) E=35, 40 MeV. Mult.: from Coulomb excitation. B(E2)(W.u.) significantly exceeds RUL.
902.250	3/2$^-$	902.248 *20*	100	0.0	1/2$^-$	M1(+E2)	−0.4 *+4−10*	0.0086 *25*	α(K)=0.0072 *21*; α(L)=0.00105 *27*; α(M)=0.00024 *6*; α(N)=5.5×10^{-5} *14*; α(O)=7.9×10^{-6} *21* α(P)=4.3×10^{-7} *13*
907.2	1/2,3/2	840.4[c@] *15*	<114[@]	66.732	3/2$^-$				
		906.4[@] *20*	100[@]	0.0	1/2$^-$				
935.261	9/2$^+$	676.15 *8*	0.57 *6*	259.070	11/2$^+$	M1		0.0190	α(K)=0.01597 *23*; α(L)=0.00233 *4*; α(M)=0.000520 *8*; α(N)=0.0001220 *17* α(O)=1.752×10^{-5} *25*; α(P)=9.50×10^{-7} *14*
		767.614 *20*	23.1 *3*	167.662	9/2$^+$	M1+E2	−0.55 *7*	0.0121 *4*	α(K)=0.0102 *4*; α(L)=0.00151 *5*; α(M)=0.000337 *9*;

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Adopted Levels, Gammas (continued)

γ(^{171}Yb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[†]	δ[†]	α	Comments
									α(N)=7.90×10^{-5} *22*; α(O)=1.13×10^{-5} *4* α(P)=5.99×10^{-7} *20*
935.261	9/2$^+$	839.961 *21*	100.0 *16*	95.282	7/2$^+$	M1+E2	−0.50 *9*	0.0099 *4*	α(K)=0.0083 *3*; α(L)=0.00122 *4*; α(M)=0.000273 *9*; α(N)=6.40×10^{-5} *21*; α(O)=9.2×10^{-6} *3* α(P)=4.90×10^{-7} *19*
944.35	5/2$^-$	821.96 *12*	27 *5*	122.416	5/2$^-$	M1(+E2)	0.6 *+9−7*	0.0100 *26*	α(K)=0.0084 *23*; α(L)=0.0012 *3*; α(M)=0.00028 *7*; α(N)=6.5×10^{-5} *15*; α(O)=9.3×10^{-6} *22* α(P)=5.0×10^{-7} *14*
		868.45 *5*	100 *5*	75.882	5/2$^-$	M1+E2	+1.8 *+21−6*	0.0062 *9*	α(K)=0.0052 *8*; α(L)=0.00081 *10*; α(M)=0.000181 *22*; α(N)=4.2×10^{-5} *6*; α(O)=6.0×10^{-6} *8* α(P)=3.0×10^{-7} *5*
		877.60 *4*	73 *5*	66.732	3/2$^-$	M1(+E2)	0.1 *+6−1*	0.0098 *16*	α(K)=0.0083 *14*; α(L)=0.00120 *18*; α(M)=0.00027 *4*; α(N)=6.3×10^{-5} *10*; α(O)=9.0×10^{-6} *14* α(P)=4.9×10^{-7} *9*
		944.40 *6*	22 *3*	0.0	1/2$^-$	(E2)		0.00417	α(K)=0.00346 *5*; α(L)=0.000554 *8*; α(M)=0.0001247 *18*; α(N)=2.91×10^{-5} *4*; α(O)=4.06×10^{-6} *6* α(P)=1.95×10^{-7} *3*
948.371	9/2$^-$	498.755 *21*	2.37 *7*	449.599	11/2$^-$	M1+E2	+0.41 *+12−14*	0.0379 *19*	α(K)=0.0317 *17*; α(L)=0.00481 *18*; α(M)=0.00108 *4*; α(N)=0.000252 *9*; α(O)=3.59×10^{-5} *14* α(P)=1.89×10^{-6} *11*
		631.066 *14*	3.02 *6*	317.309	9/2$^-$	M1+E2	+1.14 *+18−15*	0.0155 *9*	α(K)=0.0129 *8*; α(L)=0.00207 *10*; α(M)=0.000465 *21*; α(N)=0.000109 *5*; α(O)=1.53×10^{-5} *8* α(P)=7.5×10^{-7} *5*
		689.286 *20*	54.3 *8*	259.070	11/2$^+$	E1		0.00308	α(K)=0.00261 *4*; α(L)=0.000365 *6*; α(M)=8.08×10^{-5} *12*; α(N)=1.89×10^{-5} *3*; α(O)=2.68×10^{-6} *4* α(P)=1.392×10^{-7} *20*
		780.711 *23*	100.0 *14*	167.662	9/2$^+$	E1		0.00240	α(K)=0.00204 *3*; α(L)=0.000283 *4*; α(M)=6.26×10^{-5} *9*; α(N)=1.465×10^{-5} *21*; α(O)=2.08×10^{-6} *3* α(P)=1.092×10^{-7} *16*
		825.96 *3*	3.70 *14*	122.416	5/2$^-$	E2		0.00553	α(K)=0.00455 *7*; α(L)=0.000760 *11*; α(M)=0.0001719 *24*; α(N)=4.01×10^{-5} *6*; α(O)=5.55×10^{-6} *8* α(P)=2.56×10^{-7} *4*
		853.091 *12*	58.4 *8*	95.282	7/2$^+$	E1		0.00202	α(K)=0.001717 *24*; α(L)=0.000237 *4*; α(M)=5.25×10^{-5} *8*; α(N)=1.228×10^{-5} *18* α(O)=1.745×10^{-6} *25*; α(P)=9.22×10^{-8} *13*
953.0	(1/2$^-$)	832.6[c@] *15*	<136[@]	122.416	5/2$^-$				
		886.3[@] *15*	100[@]	66.732	3/2$^-$				
958.31	(5/2$^-$)	835.91 *12*	100 *8*	122.416	5/2$^-$	(E2)		0.00539	α(K)=0.00444 *7*; α(L)=0.000738 *11*; α(M)=0.0001669

Adopted Levels, Gammas (continued)

γ(^{171}Yb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[†]	δ[†]	α	Comments
									24; α(N)=3.90×10^{-5} *6*; α(O)=5.39×10^{-6} *8* α(P)=2.50×10^{-7} *4*
958.31	(5/2$^-$)	958.27 *18*	6.4 *5*	0.0	1/2$^-$				
976.38	(17/2$^-$)	196.1[a] *2*	30[a] *3*	780.32	(15/2$^-$)	(M1+E2)		0.39 *11*	α(K)=0.30 *13*; α(L)=0.075 *12*; α(M)=0.018 *4*; α(N)=0.0041 *8*; α(O)=0.00053 *5* α(P)=1.69×10^{-5} *88* Mult.: from (α,3nγ) E=34 MeV.
		371.9[a] *2*	100[a] *4*	604.38	(13/2$^-$)	(E2)[a]		0.0395	α(K)=0.0296 *5*; α(L)=0.00762 *11*; α(M)=0.00179 *3*; α(N)=0.000414 *6*; α(O)=5.32×10^{-5} *8* α(P)=1.568×10^{-6} *22*
		475.3[a] *5*	8[a] *2*	501.37	(15/2$^+$)				
980.91	(13/2$^+$)	479.3[a] *5*	11.8[a] *20*	501.37	(15/2$^+$)				
		612.1[a] *2*	39[a] *4*	368.91	13/2$^+$				
		721.8[a] *2*	100[a] *10*	259.070	11/2$^+$	D[a]			
984.037	(9/2)$^+$	724.97 *5*	100 *3*	259.070	11/2$^+$	(M1)		0.01591	α(K)=0.01340 *19*; α(L)=0.00195 *3*; α(M)=0.000435 *6*; α(N)=0.0001021 *15* α(O)=1.467×10^{-5} *21*; α(P)=7.96×10^{-7} *12*
		753.37 *6*	13 *2*	230.631	7/2$^-$	E1		0.00258	α(K)=0.00219 *3*; α(L)=0.000304 *5*; α(M)=6.73×10^{-5} *10*; α(N)=1.574×10^{-5} *22*; α(O)=2.23×10^{-6} *4* α(P)=1.170×10^{-7} *17*
		816.37 *3*	49 *2*	167.662	9/2$^+$	M1(+E2)	0.7 *+8−7*	0.0098 *23*	α(K)=0.0082 *20*; α(L)=0.00123 *25*; α(M)=0.00027 *6*; α(N)=6.4×10^{-5} *13*; α(O)=9.2×10^{-6} *19* α(P)=4.8×10^{-7} *12*
		888.77 *4*	23 *2*	95.282	7/2$^+$	(M1)		0.00958	α(K)=0.00808 *12*; α(L)=0.001168 *17*; α(M)=0.000260 *4*; α(N)=6.11×10^{-5} *9*; α(O)=8.78×10^{-6} *13* α(P)=4.78×10^{-7} *7*
988.2	(1/2$^-$,3/2$^-$)	921.5[c@] *15*	100	66.732	3/2$^-$				
991.7	(3/2$^-$)	869.7[@] *15*	52[@]	122.416	5/2$^-$				
		991.3[@] *15*	100[@]	0.0	1/2$^-$				
1004.77	(21/2$^+$)	178.5[a] *5*	22.8[a] *22*	826.11	(19/2$^+$)	(M1+E2)[a]	−0.31 *+9−11*	0.630 *19*	α(K)=0.519 *22*; α(L)=0.087 *4*; α(M)=0.0197 *9*; α(N)=0.00460 *19*; α(O)=0.000643 *18* α(P)=3.13×10^{-5} *16*
		356.6[a] *2*	100.0[a]	648.22	(17/2$^+$)	(E2)[a]		0.0445	α(K)=0.0331 *5*; α(L)=0.00880 *13*; α(M)=0.00207 *3*; α(N)=0.000479 *7*; α(O)=6.13×10^{-5} *9* α(P)=1.741×10^{-6} *25*

$^{171}_{70}Yb_{101}$-13

Adopted Levels, Gammas (continued)

γ(^{171}Yb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[†]	δ[†]	α	Comments
1024.626	7/2⁻	707.46 *14*	14 *3*	317.309	9/2⁻	(M1)		0.01691	α(K)=0.01425 *20*; α(L)=0.00208 *3*; α(M)=0.000463 *7*; α(N)=0.0001087 *16* α(O)=1.561×10⁻⁵ *22*; α(P)=8.47×10⁻⁷ *12*
		777.99 *4*	54 *16*	246.617	9/2⁻	(M1)		0.01333	α(K)=0.01124 *16*; α(L)=0.001633 *23*; α(M)=0.000364 *5*; α(N)=8.54×10⁻⁵ *12* α(O)=1.227×10⁻⁵ *18*; α(P)=6.67×10⁻⁷ *10*
		794.00 *3*	80 *2*	230.631	7/2⁻	M1+E2	+0.66 *+19−15*	0.0107 *8*	α(K)=0.0089 *7*; α(L)=0.00133 *9*; α(M)=0.000298 *19*; α(N)=7.0×10⁻⁵ *5*; α(O)=1.00×10⁻⁵ *7* α(P)=5.3×10⁻⁷ *5*
		948.740 *20*	100 *2*	75.882	5/2⁻	M1+E2	+0.60 *9*	0.0071 *3*	α(K)=0.00596 *22*; α(L)=0.00087 *3*; α(M)=0.000195 *7*; α(N)=4.58×10⁻⁵ *15*; α(O)=6.55×10⁻⁶ *22* α(P)=3.50×10⁻⁷ *14*
1039.4	(1/2⁻,3/2⁻)	963.9[c@d] *15*		75.882	5/2⁻				
		1039.4[@d] *15*		0.0	1/2⁻				
1080.971	5/2⁻	834.3[c] *3*	<40	246.617	9/2⁻				
		850.38 *4*	100 *13*	230.631	7/2⁻	M1+E2	0.9 *+11−6*	0.0082 *20*	α(K)=0.0069 *18*; α(L)=0.00104 *22*; α(M)=0.00023 *5*; α(N)=5.4×10⁻⁵ *12*; α(O)=7.7×10⁻⁶ *17* α(P)=4.0×10⁻⁷ *11*
		985.69 *4*	29 *2*	95.282	7/2⁺				
		1005.04 *4*	46.0 *13*	75.882	5/2⁻	M1+E2	0.61 *21*	0.0062 *5*	α(K)=0.0052 *4*; α(L)=0.00076 *6*; α(M)=0.000169 *12*; α(N)=4.0×10⁻⁵ *3*; α(O)=5.7×10⁻⁶ *4* α(P)=3.04×10⁻⁷ *25*
1093.30	9/2⁺	605.6 *2*	44 *9*	487.29	11/2⁻				
		834.3[c] *3*	<76	259.070	11/2⁺				
		862.389 *24*	91 *4*	230.631	7/2⁻	E1		0.00198	α(K)=0.001682 *24*; α(L)=0.000232 *4*; α(M)=5.14×10⁻⁵ *8*; α(N)=1.202×10⁻⁵ *17* α(O)=1.709×10⁻⁶ *24*; α(P)=9.03×10⁻⁸ *13*
		925.776 *20*	100.0 *25*	167.662	9/2⁺	M1+E2	0.6 *4*	0.0075 *11*	α(K)=0.0063 *9*; α(L)=0.00093 *12*; α(M)=0.000207 *25*; α(N)=4.9×10⁻⁵ *6*; α(O)=7.0×10⁻⁶ *9* α(P)=3.7×10⁻⁷ *6*
		998.02 *3*	70.9 *25*	95.282	7/2⁺	M1+E2	−0.7 *4*	0.0061 *9*	α(K)=0.0051 *8*; α(L)=0.00075 *10*; α(M)=0.000167 *21*; α(N)=3.9×10⁻⁵ *5*; α(O)=5.6×10⁻⁶ *8* α(P)=3.0×10⁻⁷ *5*
1114.03	(15/2⁺)	133.2[a] *2*	100[a] *11*	980.91	(13/2⁺)	D[a]			
		745.2[a] *2*	23[a] *4*	368.91	13/2⁺				
1127.68	(9/2⁻)	881.03 *4*	100 *4*	246.617	9/2⁻	(E2)		0.00482	α(K)=0.00398 *6*; α(L)=0.000651 *10*;

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Adopted Levels, Gammas (continued)

γ(^{171}Yb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[†]	δ[†]	α	Comments
									α(M)=0.0001470 *21*; α(N)=3.43×10^{-5} *5*; α(O)=4.77×10^{-6} *7* α(P)=2.24×10^{-7} *4*
1127.68	(9/2$^-$)	897.18 *8*	62 *7*	230.631	7/2$^-$	(M1)		0.00936	α(K)=0.00789 *11*; α(L)=0.001141 *16*; α(M)=0.000254 *4*; α(N)=5.97×10^{-5} *9*; α(O)=8.57×10^{-6} *12* α(P)=4.67×10^{-7} *7*
		1051.73 *10*	15.3 *18*	75.882	5/2$^-$				
1190.43	(19/2$^-$)	214.1[a] *2*	26.3[a] *21*	976.38	(17/2$^-$)	(M1+E2)	−0.29 *+10−12*	0.380 *14*	α(K)=0.315 *14*; α(L)=0.0507 *10*; α(M)=0.0114 *3*; α(N)=0.00268 *6*; α(O)=0.000378 *6* α(P)=1.90×10^{-5} *10* Mult.,δ: from (α,3nγ) E=34 MeV. Iγ: other: 44 in (α,3nγ) E=34 MeV.
		410.0[a] *2*	100[a] *4*	780.32	(15/2$^-$)	(E2)[a]		0.0301	α(K)=0.0230 *4*; α(L)=0.00550 *8*; α(M)=0.001285 *19*; α(N)=0.000298 *5*; α(O)=3.87×10^{-5} *6* α(P)=1.234×10^{-6} *18*
		542.2[a] *2*	9.5[a] *21*	648.22	(17/2$^+$)	D[a]			
1234.29	(23/2$^+$)	229.5[a] *2*	21.4[a] *2*	1004.77	(21/2$^+$)	(M1+E2)[a]	−0.25 *6*	0.317 *7*	α(K)=0.263 *6*; α(L)=0.0414 *6*; α(M)=0.00932 *15*; α(N)=0.00218 *4*; α(O)=0.000310 *5* α(P)=1.59×10^{-5} *4* δ: from (α,3nγ) E=34 MeV.
		408.2[a] *2*	100.0[a] *13*	826.11	(19/2$^+$)	(E2)[a]		0.0305	α(K)=0.0232 *4*; α(L)=0.00558 *8*; α(M)=0.001304 *19*; α(N)=0.000302 *5*; α(O)=3.92×10^{-5} *6* α(P)=1.247×10^{-6} *18*
1263.63	19/2$^-$	403.4[a] *2*	7.9[a] *7*	860.16	17/2$^-$				
		430.6[a] *2*	100[a] *3*	833.08	15/2$^-$	(E2)[a]		0.0264	α(K)=0.0203 *3*; α(L)=0.00469 *7*; α(M)=0.001093 *16*; α(N)=0.000253 *4*; α(O)=3.31×10^{-5} *5* α(P)=1.096×10^{-6} *16*
1265.86	(17/2$^+$)	152.1[a] *2*	100[a] *11*	1114.03	(15/2$^+$)	(M1+E2)[a]		0.86 *17*	α(K)=0.61 *25*; α(L)=0.192 *62*; α(M)=0.046 *17*; α(N)=0.0105 *37*; α(O)=0.00132 *35* α(P)=3.4×10^{-5} *19*
		284.9[a] *2*	47[a] *6*	980.91	(13/2$^+$)	(E2)[a]		0.0865	α(K)=0.0608 *9*; α(L)=0.0197 *3*; α(M)=0.00470 *7*; α(N)=0.001083 *16*; α(O)=0.0001353 *20* α(P)=3.08×10^{-6} *5* Iγ: other: 38 in (α,3nγ) E=34 MeV.
		764.5[a] *5*	19[a] *4*	501.37	(15/2$^+$)				
1294.54	(21/2$^-$)	434.3[a] *2*	100[a]	860.16	17/2$^-$	(E2)[a]		0.0258	α(K)=0.0199 *3*; α(L)=0.00456 *7*; α(M)=0.001063 *15*; α(N)=0.000246 *4*; α(O)=3.22×10^{-5} *5* α(P)=1.074×10^{-6} *15*
1331.2	(3/2$^-$)	1256[@] *2*		75.882	5/2$^-$				Doublet (broader than normal peak).

$^{171}_{70}Yb_{101}$-15

Adopted Levels, Gammas (continued)

γ(^{171}Yb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[†]	α	Comments
1331.2	(3/2⁻)	1264[@] *2*		66.732	3/2⁻			Doublet (broader than normal peak).
1377.505	7/2⁻	1169.48 *6*	1.67 *15*	208.019	7/2⁻	M1	0.00489	α(K)=0.00413 *6*; α(L)=0.000592 *9*; α(M)=0.0001316 *19*; α(N)=3.09×10^{-5} *5*; α(O)=4.44×10^{-6} *7* α(P)=2.43×10^{-7} *4*
		1209.830 *21*	20.9 *3*	167.662	9/2⁺	E1	1.09×10^{-3}	α(K)=0.000903 *13*; α(L)=0.0001228 *18*; α(M)=2.71×10^{-5} *4*; α(N)=6.35×10^{-6} *9* α(O)=9.07×10^{-7} *13*; α(P)=4.88×10^{-8} *7*
		1255.14 *4*	1.92 *11*	122.416	5/2⁻	M1	0.00413	α(K)=0.00348 *5*; α(L)=0.000498 *7*; α(M)=0.0001106 *16*; α(N)=2.60×10^{-5} *4*; α(O)=3.74×10^{-6} *6* α(P)=2.05×10^{-7} *3*
		1282.214 *19*	100.0 *17*	95.282	7/2⁺	E1	1.01×10^{-3}	α(K)=0.000815 *12*; α(L)=0.0001106 *16*; α(M)=2.44×10^{-5} *4*; α(N)=5.71×10^{-6} *8* α(O)=8.17×10^{-7} *12*; α(P)=4.41×10^{-8} *7*
1388.1	(1/2,3/2)	1388.1[@d] *15*	100	0.0	1/2⁻			
1421.45	(21/2⁻)	231.0[a] *2*	21.3[a] *25*	1190.43	(19/2⁻)	D+Q[a]		
		445.0[a] *2*	100[a] *4*	976.38	(17/2⁻)	(E2)[a]	0.0241	α(K)=0.0187 *3*; α(L)=0.00422 *6*; α(M)=0.000983 *14*; α(N)=0.000228 *4*; α(O)=2.99×10^{-5} *5* α(P)=1.013×10^{-6} *15*
		595.5[a] *2*	17.5[a] *25*	826.11	(19/2⁺)			
1434.9	1/2,3/2	669.6[c@] *15*	<160[@]	766.3	(3/2⁺)			
		1370.5[c@] *10*	<134[@]	66.732	3/2⁻			
		1434.9[@] *15*	100[@]	0.0	1/2⁻			
1435.90	(25/2⁺)	201.7[a] *2*	16.2[a] *7*	1234.29	(23/2⁺)			I_γ: other: 71 *7* in (α,3nγ) E=34 MeV.
		431.1[a#] *2*	100.0[a] *18*	1004.77	(21/2⁺)	(E2)[a#]	0.0263	α(K)=0.0202 *3*; α(L)=0.00467 *7*; α(M)=0.001089 *16*; α(N)=0.000252 *4*; α(O)=3.30×10^{-5} *5* α(P)=1.093×10^{-6} *16*
1436.63	(19/2⁺)	171.0[a] *2*	100[a] *10*	1265.86	(17/2⁺)	(M1+E2)[a]	0.60 *14*	α(K)=0.44 *18*; α(L)=0.12 *3*; α(M)=0.0291 *82*; α(N)=0.0067 *19*; α(O)=0.00086 *16* α(P)=2.5×10^{-5} *13*
		322.5[a] *2*	69[a] *8*	1114.03	(15/2⁺)	(E2)[a]	0.0596	α(K)=0.0433 *7*; α(L)=0.01254 *18*; α(M)=0.00297 *5*; α(N)=0.000684 *10*; α(O)=8.67×10^{-5} *13* α(P)=2.24×10^{-6} *4* I_γ: other: 19 in (α,3nγ) E=34 MeV.
		788.3[a] *5*	12.2[a] *20*	648.22	(17/2⁺)			
1492.3	(1/2,3/2)	1370.5[c@] *10*		122.416	5/2⁻			
		1491.0[c@] *15*		0.0	1/2⁻			
1517.2	(17/2⁺)	684.1[a] *5*	100[a] *29*	833.08	15/2⁻	D[a]		

$^{171}_{70}Yb_{101}$-16

Adopted Levels, Gammas (continued)

γ(^{171}Yb) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Mult. †	α	Comments
1517.2	(17/2$^+$)	869.1[a] *5*	71[a] *29*	648.22	(17/2$^+$)			
1536.9	1/2,3/2	1470.0[@] *15*	100	66.732	3/2$^-$			
1614.4	(19/2$^+$)	754.2[a] *2*	100[a]	860.16	17/2$^-$	D[a]		
1626.17	(21/2$^+$)	189.6[a] *2*	78[a] *8*	1436.63	(19/2$^+$)	(M1+E2)[a]	0.44 *12*	α(K)=0.33 *14*; α(L)=0.085 *15*; α(M)=0.020 *5*; α(N)=0.0046 *10*; α(O)=0.00059 *7* α(P)=1.85×10^{-5} *97*
		360.3[a] *2*	100[a] *11*	1265.86	(17/2$^+$)	(E2)[a]	0.0432	α(K)=0.0322 *5*; α(L)=0.00849 *12*; α(M)=0.00200 *3*; α(N)=0.000462 *7*; α(O)=5.92×10^{-5} *9* α(P)=1.696×10^{-6} *24*
		800.2[a] *5*	25[a] *6*	826.11	(19/2$^+$)			
1656.41	(19/2$^+$)	651.7[a] *2*	92[a] *17*	1004.77	(21/2$^+$)			
		830.2[a] *2*	100[a] *17*	826.11	(19/2$^+$)			
1664.87	(23/2$^-$)	243.4[a] *2*	21[a] *3*	1421.45	(21/2$^-$)			
		474.4[a] *2*	100[a] *4*	1190.43	(19/2$^-$)	Q[a]		
		660.1[a] *2*	20[a] *3*	1004.77	(21/2$^+$)			
1665.22	(21/2$^+$)	839.1[a] *2*	100[a]	826.11	(19/2$^+$)			
1724.43	(27/2$^+$)	288.5[a] *2*	14.6[a] *10*	1435.90	(25/2$^+$)	(M1+E2)[a]	0.129 *46*	α(K)=0.103 *44*; α(L)=0.0204 *16*; α(M)=0.00470 *23*; α(N)=0.00109 *7*; α(O)=0.000147 *19* α(P)=5.9×10^{-6} *30*
		490.2[a] *2*	100.0[a] *20*	1234.29	(23/2$^+$)	(E2)[a]	0.0188	α(K)=0.01472 *21*; α(L)=0.00313 *5*; α(M)=0.000724 *11*; α(N)=0.0001682 *24* α(O)=2.23×10^{-5} *4*; α(P)=8.06×10^{-7} *12*
1773.3	(23/2$^+$)	768.5[a] *5*	100[a]	1004.77	(21/2$^+$)			
1774.2	(23/2$^-$)	479.7[a] *5*	6.3[a] *10*	1294.54	(21/2$^-$)			
		510.6[a] *2*	100[a] *3*	1263.63	19/2$^-$	Q[a]		
1807.6	(25/2$^-$)	513.0[a] *2*	100[a]	1294.54	(21/2$^-$)	Q[a]		
1829.0	1/2,3/2	840.4[c@d] *15*	<102[@]	991.7	(3/2$^-$)			
		845.3[@d] *15*	100[@]	988.2	(1/2$^-$,3/2$^-$)			
		876.0[@] *15*	27[@]	953.0	(1/2$^-$)			
1834.79	(23/2$^+$)	208.7[a] *2*	54[a] *5*	1626.17	(21/2$^+$)	(M1+E2)[a]	0.328 *96*	α(K)=0.25 *11*; α(L)=0.060 *7*; α(M)=0.0141 *21*; α(N)=0.0033 *5*; α(O)=0.000425 *24* α(P)=1.42×10^{-5} *74*
		398.1[a] *2*	100[a] *10*	1436.63	(19/2$^+$)	(E2)[a]	0.0326	α(K)=0.0248 *4*; α(L)=0.00606 *9*; α(M)=0.001418 *20*; α(N)=0.000328 *5*; α(O)=4.25×10^{-5} *6* α(P)=1.326×10^{-6} *19*
1871.5	(1/2$^-$,3/2$^-$)	832.6[c@d] *15*		1039.4	(1/2$^-$,3/2$^-$)			
		963.9[c@d] *15*		907.2	1/2,3/2			

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Adopted Levels, Gammas (continued)

γ(^{171}Yb) (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Mult. †
1884.8	(21/2$^+$)	367.7[a] 5	100[a] 14	1517.2	(17/2$^+$)	(Q)[a]
		621.2[a] 5	86[a] 29	1263.63	19/2$^-$	
1913.2	1/2,3/2	921.5[c@d] 15	100	991.7	(3/2$^-$)	
1919.57	(25/2$^-$)	254.8[a] 5	15.7[a] 20	1664.87	(23/2$^-$)	D[a]
		498.2[a] 2	100[a] 4	1421.45	(21/2$^-$)	Q[a]
		685.2[a] 2	33[a] 4	1234.29	(23/2$^+$)	D[a]
1938.18	(29/2$^+$)	213.8[a] 2	8.1[a] 5	1724.43	(27/2$^+$)	
		502.3[a] 2	100.0[a] 17	1435.90	(25/2$^+$)	Q[a]
1971.7	1/2,3/2	1205.4[@] 10	100	766.3	(3/2$^+$)	
1986.1	(23/2$^+$)	371.7[a] 5	38[a] 8	1614.4	(19/2$^+$)	
		691.6[a] 2	100[a] 13	1294.54	(21/2$^-$)	D[a]
2006.8	1/2,3/2	1240.5[@d] 10	100	766.3	(3/2$^+$)	
2049.1	1/2,3/2	1141.9[@] 15	100	907.2	1/2,3/2	
2059.89	(25/2$^+$)	224.9[a] 5	31[a] 4	1834.79	(23/2$^+$)	D+Q[a]
		433.7[a] 2	100[a] 12	1626.17	(21/2$^+$)	
		825.6[a] 2	58[a] 8	1234.29	(23/2$^+$)	
2069.9	(23/2$^+$)	413.2[a] 5	88[a] 25	1656.41	(19/2$^+$)	
		634.0[a] 5	100[a] 25	1436.63	(19/2$^+$)	
		835.2[a] 5	75[a] 25	1234.29	(23/2$^+$)	
2087.3	(25/2$^+$)	422.0[a] 5	88[a] 13	1665.22	(21/2$^+$)	
		853.0[a] 5	100[a] 25	1234.29	(23/2$^+$)	D[a]
2138.4	(1/2$^-$,3/2$^-$)	804.7[@d] 15	100[@]	1331.2	(3/2$^-$)	
		1099[@] 2	25[@]	1039.4	(1/2$^-$,3/2$^-$)	
2179.83	(27/2$^-$)	260.1[a] 5	11.4[a] 21	1919.57	(25/2$^-$)	
		514.9[a] 2	100[a] 5	1664.87	(23/2$^-$)	Q[a]
		744.3[a] 5	24[a] 5	1435.90	(25/2$^+$)	
2261.4	1/2,3/2	2194.7[@] 20	100	66.732	3/2$^-$	
2293.86	(31/2$^+$)	355.6[a] 5	10.9[a] 22	1938.18	(29/2$^+$)	
		569.4[a] 2	100[a] 3	1724.43	(27/2$^+$)	Q[a]
2306.14	(27/2$^+$)	246.5[a] 5	23[a] 3	2059.89	(25/2$^+$)	D[a]
		471.4[a] 2	100[a] 11	1834.79	(23/2$^+$)	Q[a]
2318.7	(25/2$^+$)	433.9[a] 2	100[a] 21	1884.8	(21/2$^+$)	
		544.4[a] 5	43[a] 7	1774.2	(23/2$^-$)	
2334.3	(27/2$^+$)	898.4[a] 5	100[a]	1435.90	(25/2$^+$)	
2358.8	(27/2$^+$)	922.9[a] 5	100[a]	1435.90	(25/2$^+$)	
2359.8	(27/2$^-$)	585.6[a] 2	100[a]	1774.2	(23/2$^-$)	Q[a]
2392.9	(29/2$^-$)	585.2[a] 2	100[a]	1807.6	(25/2$^-$)	Q[a]

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Adopted Levels, Gammas (continued)

γ(^{171}Yb) (continued)

E$_i$(level)	J$^\pi_i$	E$_\gamma$[†]	I$_\gamma$[‡]	E$_f$	J$^\pi_f$	Mult.[†]
2428.5	(27/2$^+$)	442.4[a] *2*	87[a] *13*	1986.1	(23/2$^+$)	Q[a]
		620.9[a] *2*	100[a] *13*	1807.6	(25/2$^-$)	D[a]
2446.9	1/2,3/2	909.7[@] *20*	100[@]	1536.9	1/2,3/2	
		1116.0[@] *20*	34[@]	1331.2	(3/2$^-$)	
2447.23	(29/2$^-$)	267.6[a] *5*	14[a] *4*	2179.83	(27/2$^-$)	
		527.7[a] *2*	100[a] *8*	1919.57	(25/2$^-$)	
		722.8[a] *2*	54[a] *8*	1724.43	(27/2$^+$)	
2468.0	(1/2$^-$,3/2$^-$)	2401.3[@d] *20*	100	66.732	3/2$^-$	
2479.0	(1/2$^-$,3/2$^-$)	776.4[@] *15*	100[@]	1702.6	1/2,3/2	
		1491.0[c@] *15*	<54[@]	988.2	(1/2$^-$,3/2$^-$)	
		2479[@] *2*	8.3[@]	0.0	1/2$^-$	
2509.0	(33/2$^+$)	570.9[a] *2*	100[a]	1938.18	(29/2$^+$)	Q[a]
2566.6	(29/2$^+$)	260.1[a] *5*	20[a] *3*	2306.14	(27/2$^+$)	
		506.6[a] *2*	100[a] *11*	2059.89	(25/2$^+$)	
2578.1	(27/2$^+$)	508.4[a] *5*	100[a] *22*	2069.9	(23/2$^+$)	
		639.8[a] *5*	53[a] *10*	1938.18	(29/2$^+$)	
2596.3	(29/2$^+$)	509.0[a] *5*	100[a]	2087.3	(25/2$^+$)	
2717.10	(31/2$^-$)	269.6[a] *5*	8.0[a] *25*	2447.23	(29/2$^-$)	
		537.2[a] *2*	100[a] *10*	2179.83	(27/2$^-$)	
		779.3[a] *5*	35[a] *5*	1938.18	(29/2$^+$)	D[a]
2820.8	(29/2$^+$)	461.0[a] *5*	<5[a]	2359.8	(27/2$^-$)	
		502.1[a] *2*	100[a] *18*	2318.7	(25/2$^+$)	
2846.1	(31/2$^+$)	279.1[a] *5*	15[a] *4*	2566.6	(29/2$^+$)	
		540.1[a] *2*	100[a] *12*	2306.14	(27/2$^+$)	
2939.1	(35/2$^+$)	645.2[a] *2*	100[a]	2293.86	(31/2$^+$)	Q[a]
2944.6	(31/2$^+$)	516.1[a] *2*	100[a] *13*	2428.5	(27/2$^+$)	
		551.7[a] *5*	31[a] *6*	2392.9	(29/2$^-$)	
2984.0	(33/2$^-$)	537.2[a] *5*	100[a] *25*	2447.23	(29/2$^-$)	
		591.0[a] *5*	63[a] *8*	2392.9	(29/2$^-$)	
		690.2[a] *5*	75[a] *13*	2293.86	(31/2$^+$)	D[a]
3015.1	(31/2$^-$)	655.3[a] *5*	100[a]	2359.8	(27/2$^-$)	
3059.0	(33/2$^-$)	612.1[a] *5*	26[a] *9*	2447.23	(29/2$^-$)	
		666.0[a] *2*	100[a] *8*	2392.9	(29/2$^-$)	
3142.7	(33/2$^+$)	297.1[a] *5*	15[a] *5*	2846.1	(31/2$^+$)	
		575.6[a] *5*	100[a] *25*	2566.6	(29/2$^+$)	
3146.5	(37/2$^+$)	637.5[a] *2*	100[a]	2509.0	(33/2$^+$)	
3281.8	(35/2$^-$)	564.7[a] *2*	100[a] *17*	2717.10	(31/2$^-$)	Q[a]

Adopted Levels, Gammas (continued)

γ(^{171}Yb) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[†]
3281.8	(35/2$^-$)	773.0[a] 5	19[a] 5	2509.0	(33/2$^+$)	D[a]
3389.8	(33/2$^+$)	569.0[a] 5	100[a]	2820.8	(29/2$^+$)	
3448.0	(35/2$^+$)	601.9[a] 5	100[a]	2846.1	(31/2$^+$)	
3538.3	(35/2$^+$)	593.7[a] 5	100[a]	2944.6	(31/2$^+$)	
3567.6	(37/2$^-$)	583.8[a] 5	100[a] 17	2984.0	(33/2$^-$)	
		628.2[a] 5	13[a] 8	2939.1	(35/2$^+$)	
3656.5	(39/2$^+$)	717.4[a] 5	100[a]	2939.1	(35/2$^+$)	
3746.7	(35/2$^-$)	731.6[a] 5	100[a]	3015.1	(31/2$^-$)	
3772.5	(37/2$^-$)	713.5[a] 5	100[a]	3059.0	(33/2$^-$)	
3779.1	(37/2$^+$)	636.4[a] 5	100[a]	3142.7	(33/2$^+$)	
3848.0	(41/2$^+$)	701.5[a] 5	100[a]	3146.5	(37/2$^+$)	
3882.7	(39/2$^-$)	600.8[a] 5	100[a] 17	3281.8	(35/2$^-$)	
		736.3[a] 5	17[a] 6	3146.5	(37/2$^+$)	
4103.0	(39/2$^+$)	655.0[a] 5	100[a]	3448.0	(35/2$^+$)	
4197.6	(41/2$^-$)	630[a] 1	100[a]	3567.6	(37/2$^-$)	
4442.5	(43/2$^+$)	786.0[a] 5	100[a]	3656.5	(39/2$^+$)	
4468.1?	(41/2$^+$)	689[ad] 1	100[a]	3779.1	(37/2$^+$)	
4527.7	(43/2$^-$)	645[a] 1	≤100[a]	3882.7	(39/2$^-$)	
		680[ad] 1	≤100[a]	3848.0	(41/2$^+$)	
4612.1	(45/2$^+$)	764.1[a] 5	100[a]	3848.0	(41/2$^+$)	
4812.0	(43/2$^+$)	709.0[a] 5	100[a]	4103.0	(39/2$^+$)	
4879.7?	(45/2$^-$)	682[ad] 1	100[a]	4197.6	(41/2$^-$)	

† From ^{171}Lu ε decay (8.24 d), except where noted.

‡ Relative photon branching from each level; values are from ^{171}Lu ε decay (8.24 d), except where noted. Upper limits are given for photon branchings affected by multiple placement.

From ^{170}Er(α,3nγ) E=34 MeV.

@ From ^{170}Yb(n,γ) E=thermal.

& From Coulomb excitation.

a From ^{170}Er(α,3nγ) E=35,40 MeV.

b From Coulomb excitation.

c Multiply placed.

d Placement of transition in the level scheme is uncertain.

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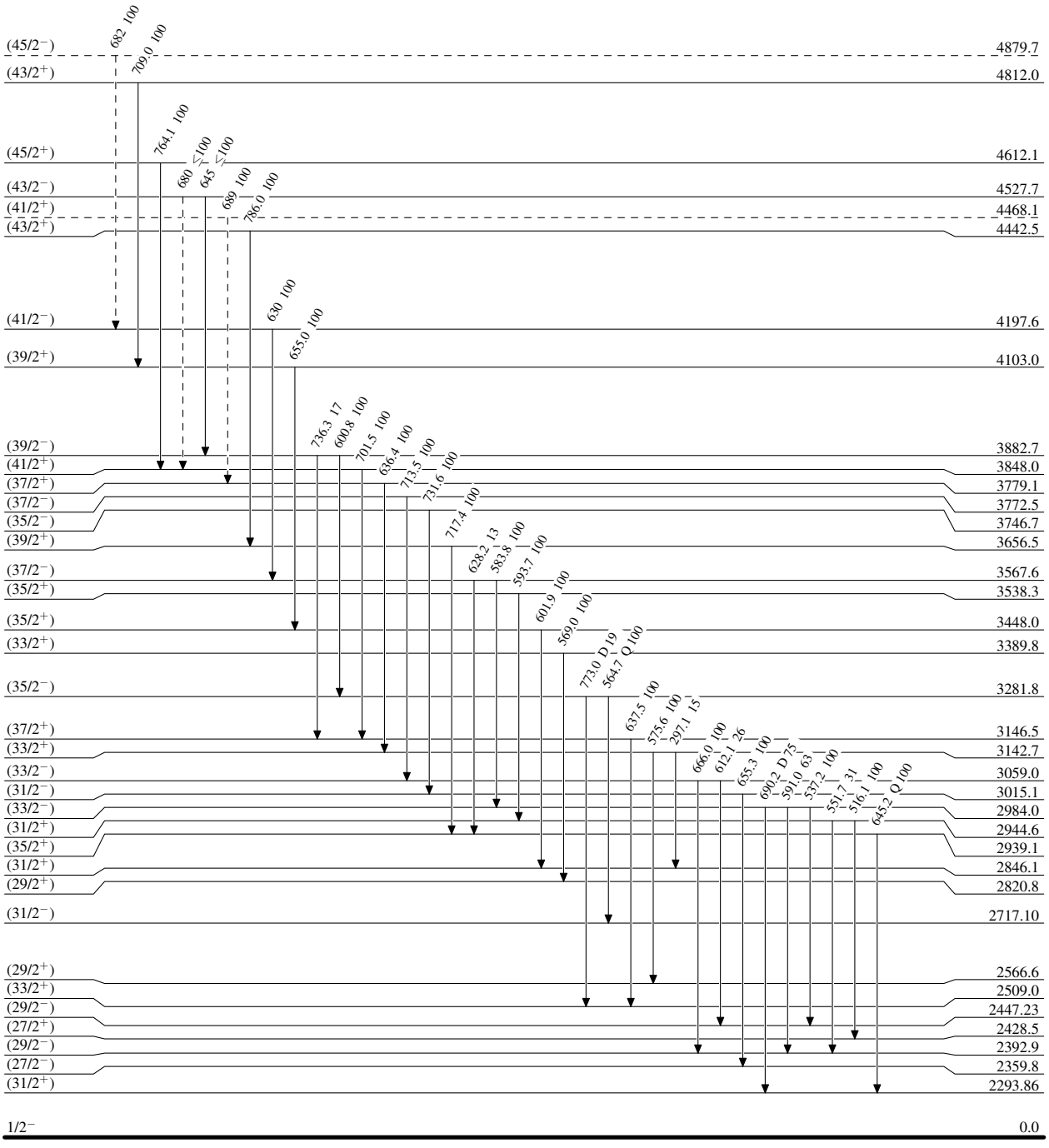
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{171}_{70}Yb_{101}$

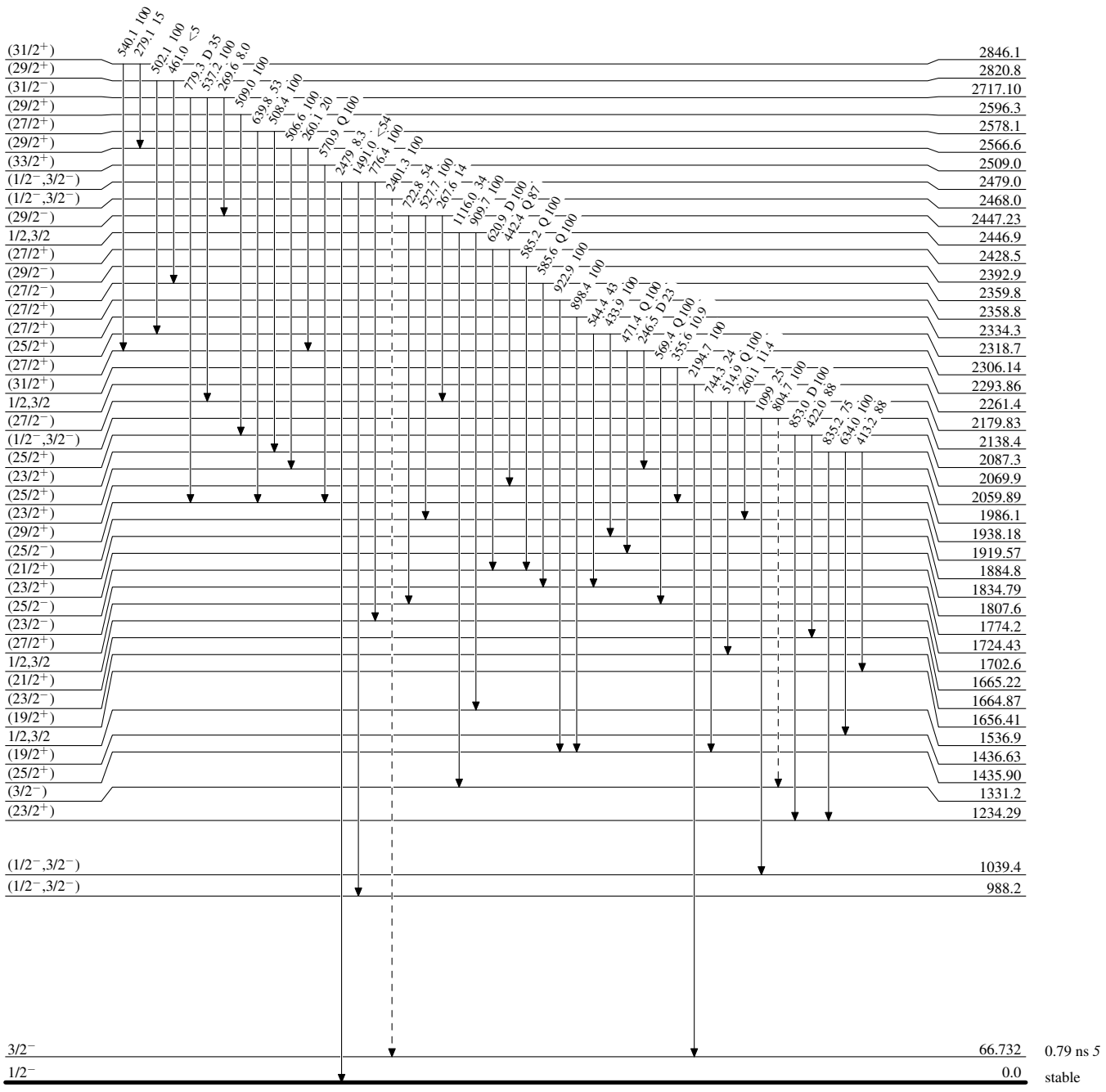
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{171}_{70}Yb_{101}$

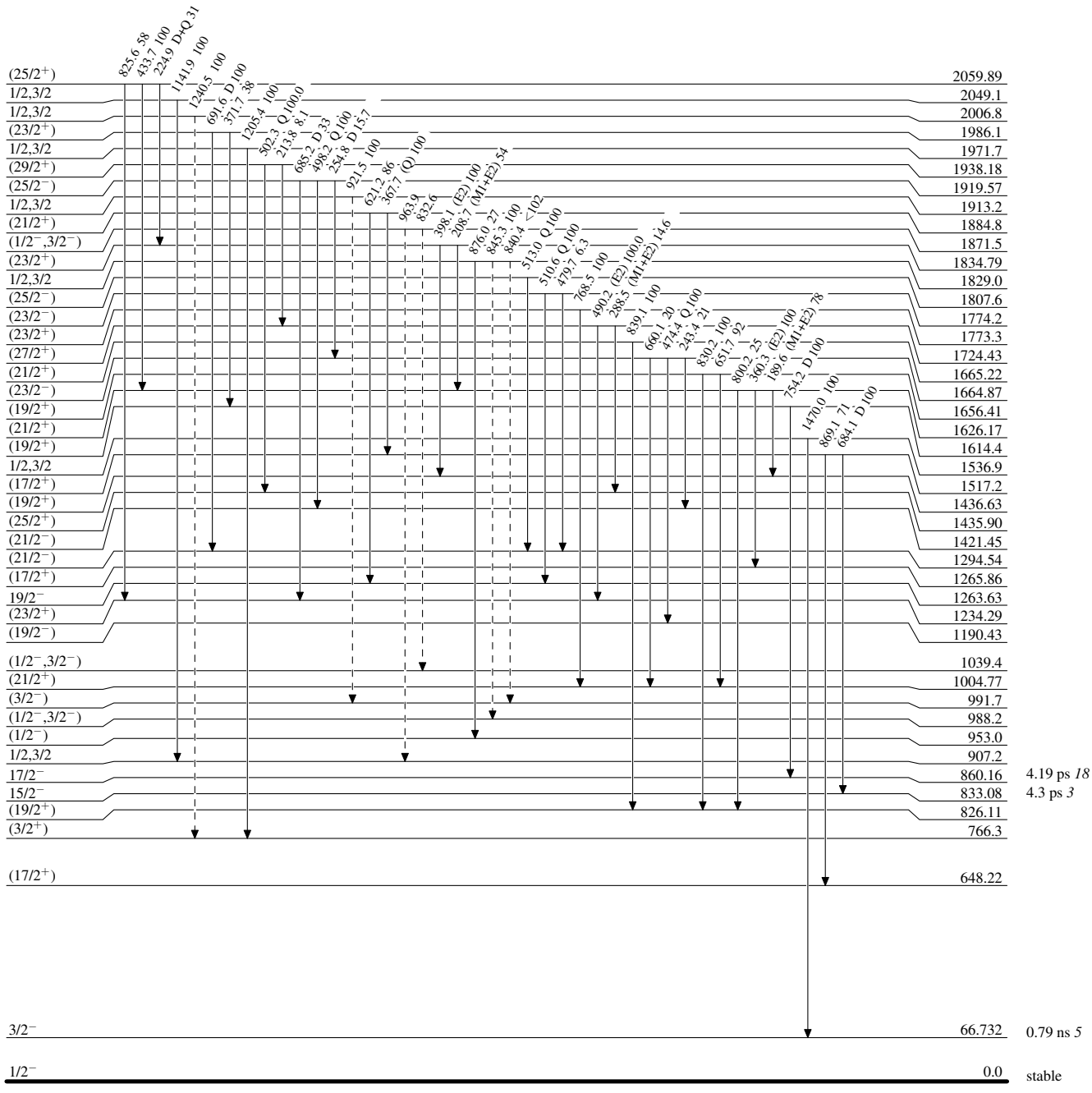
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

– – – – – – ► γ Decay (Uncertain)



$^{171}_{70}Yb_{101}$

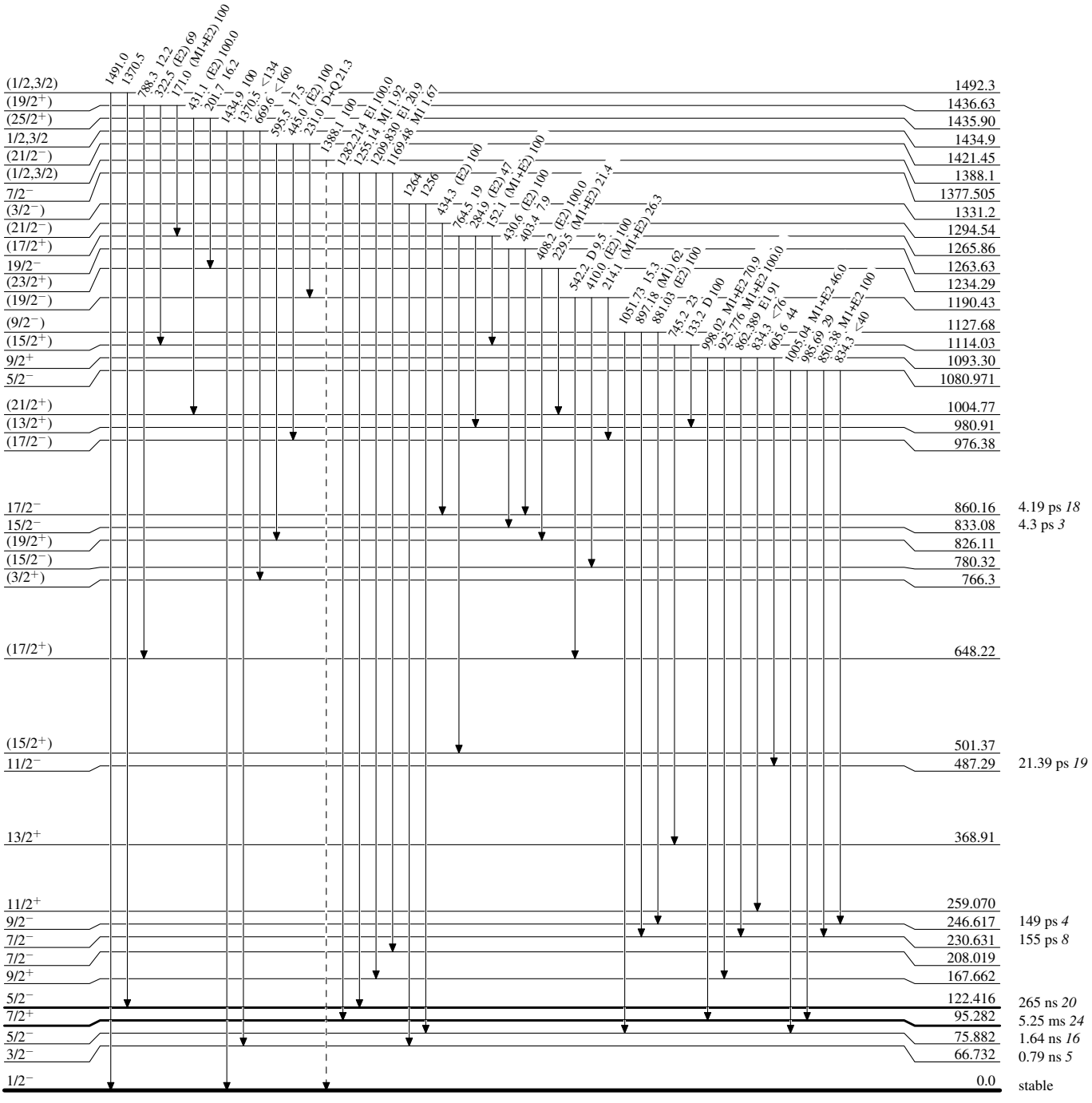
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{171}_{70}Yb_{101}$

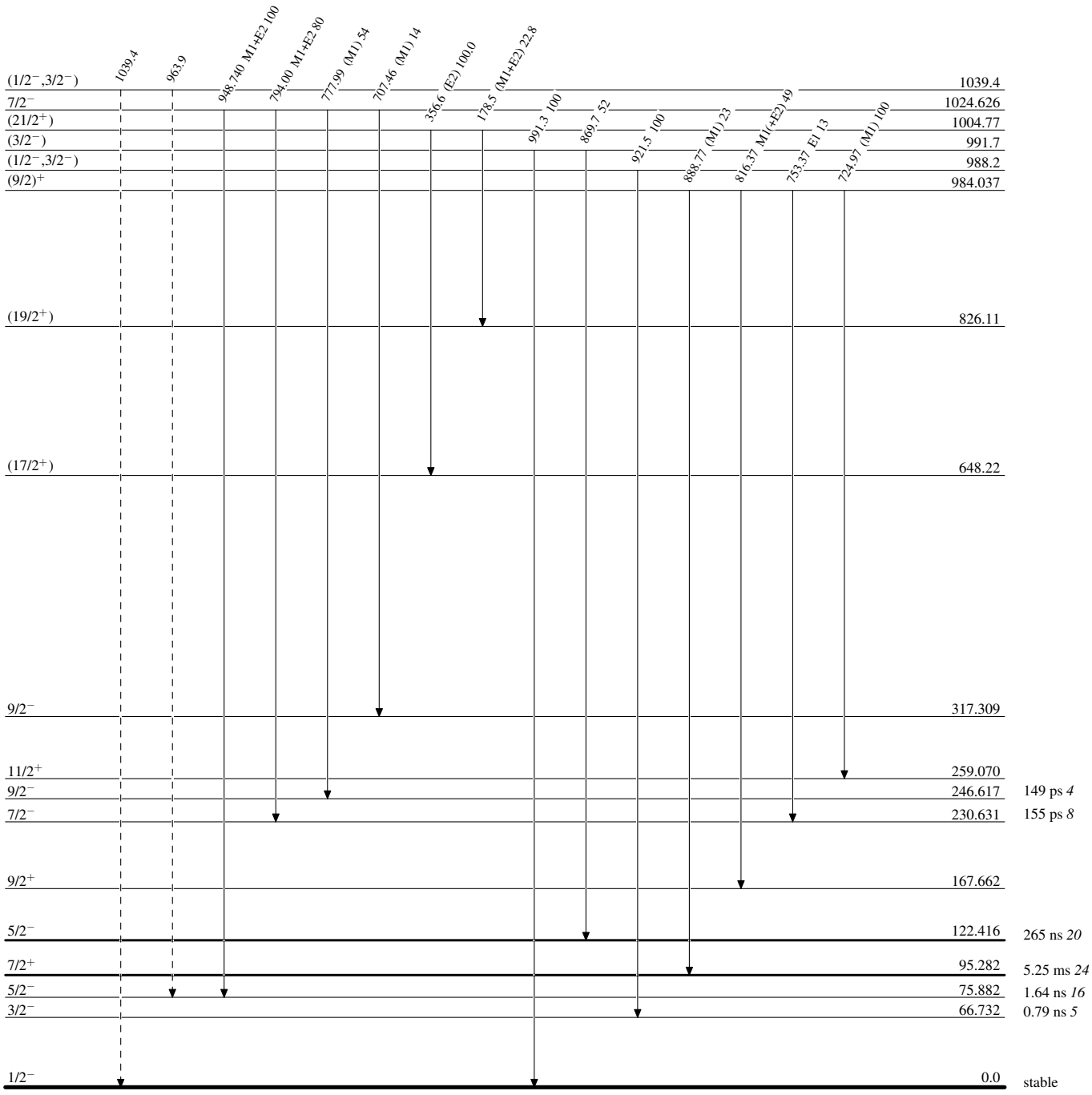
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)

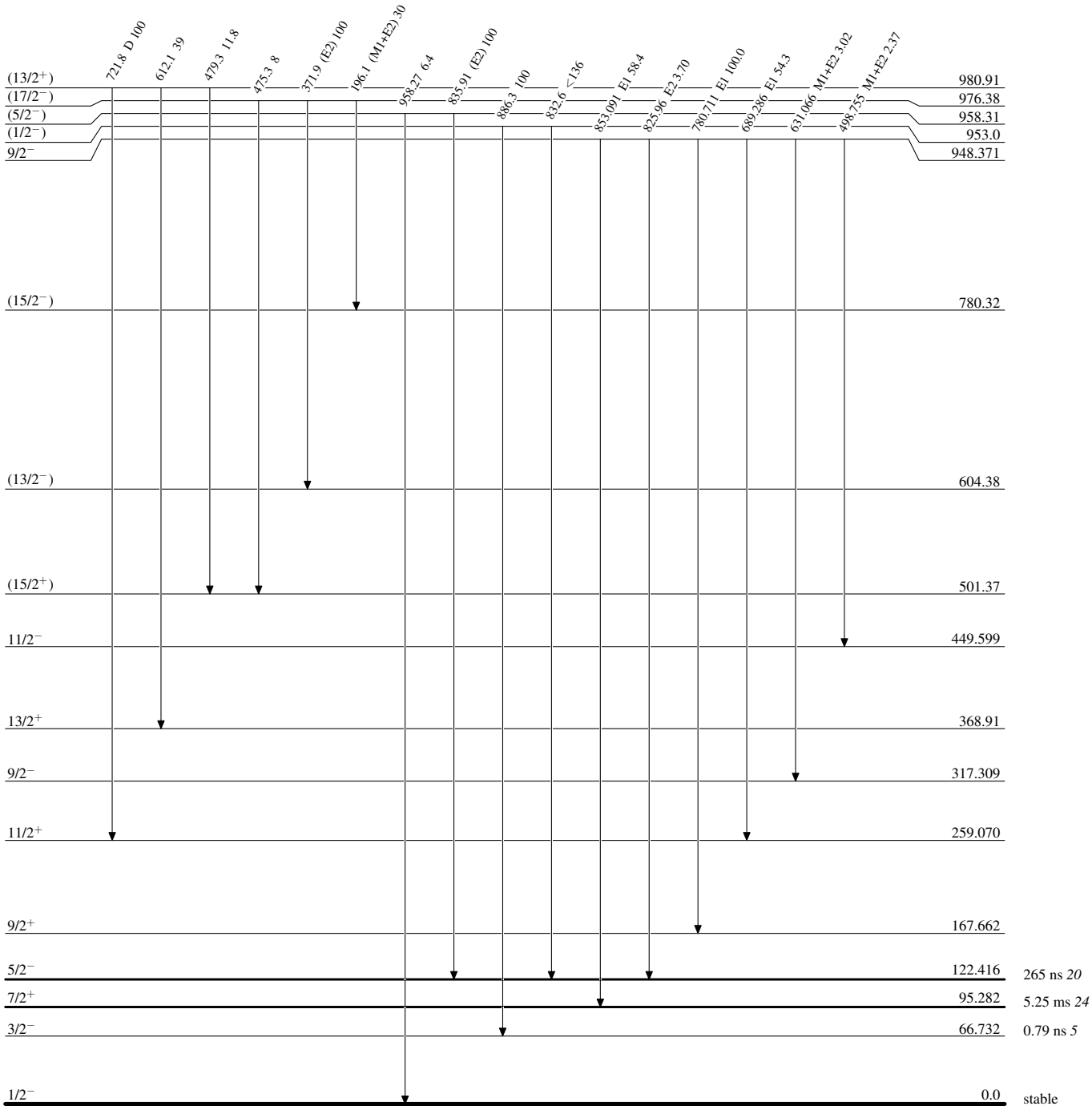


$^{171}_{70}Yb_{101}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



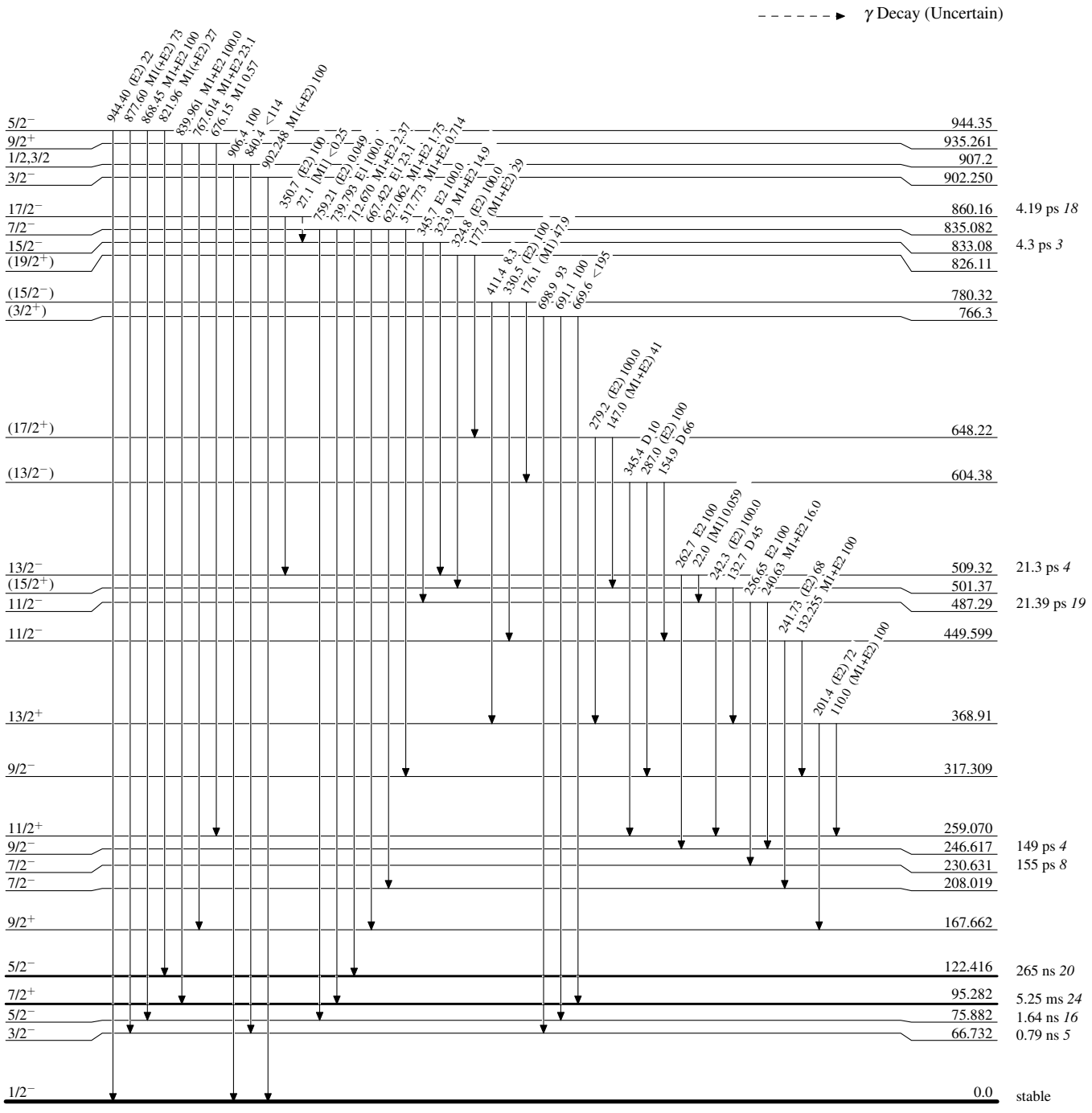
$^{171}_{70}Yb_{101}$

Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

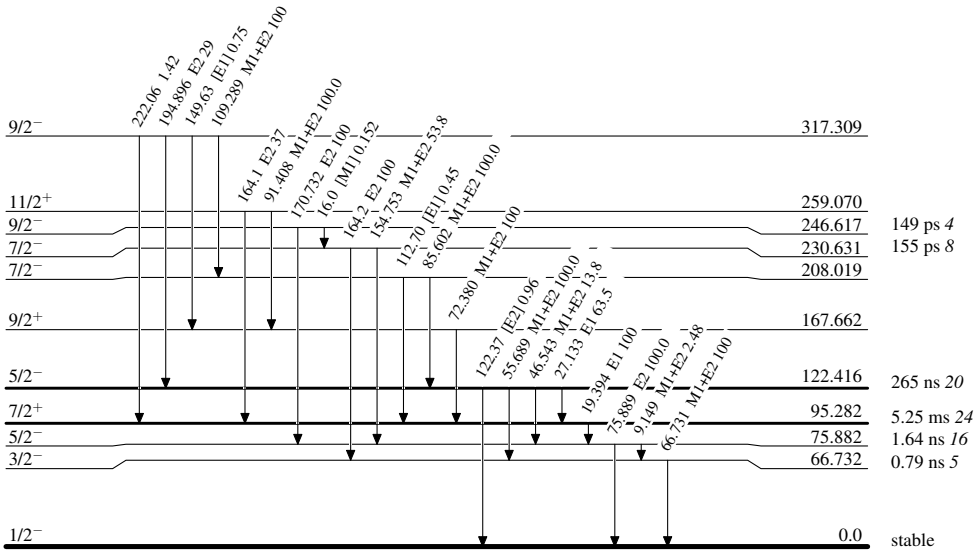


$^{171}_{70}Yb_{101}$

Adopted Levels, Gammas

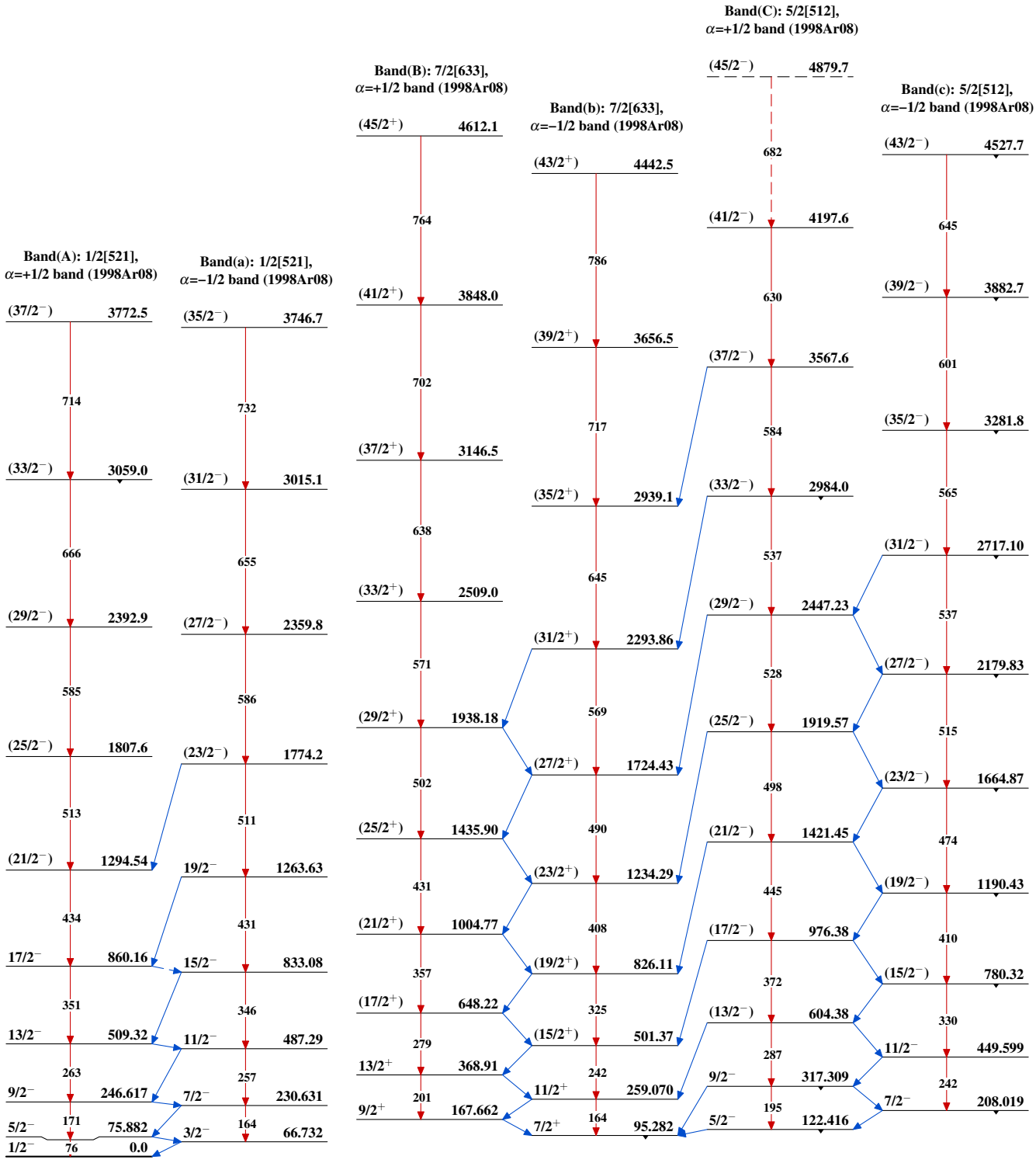
Level Scheme (continued)

Intensities: Relative photon branching from each level



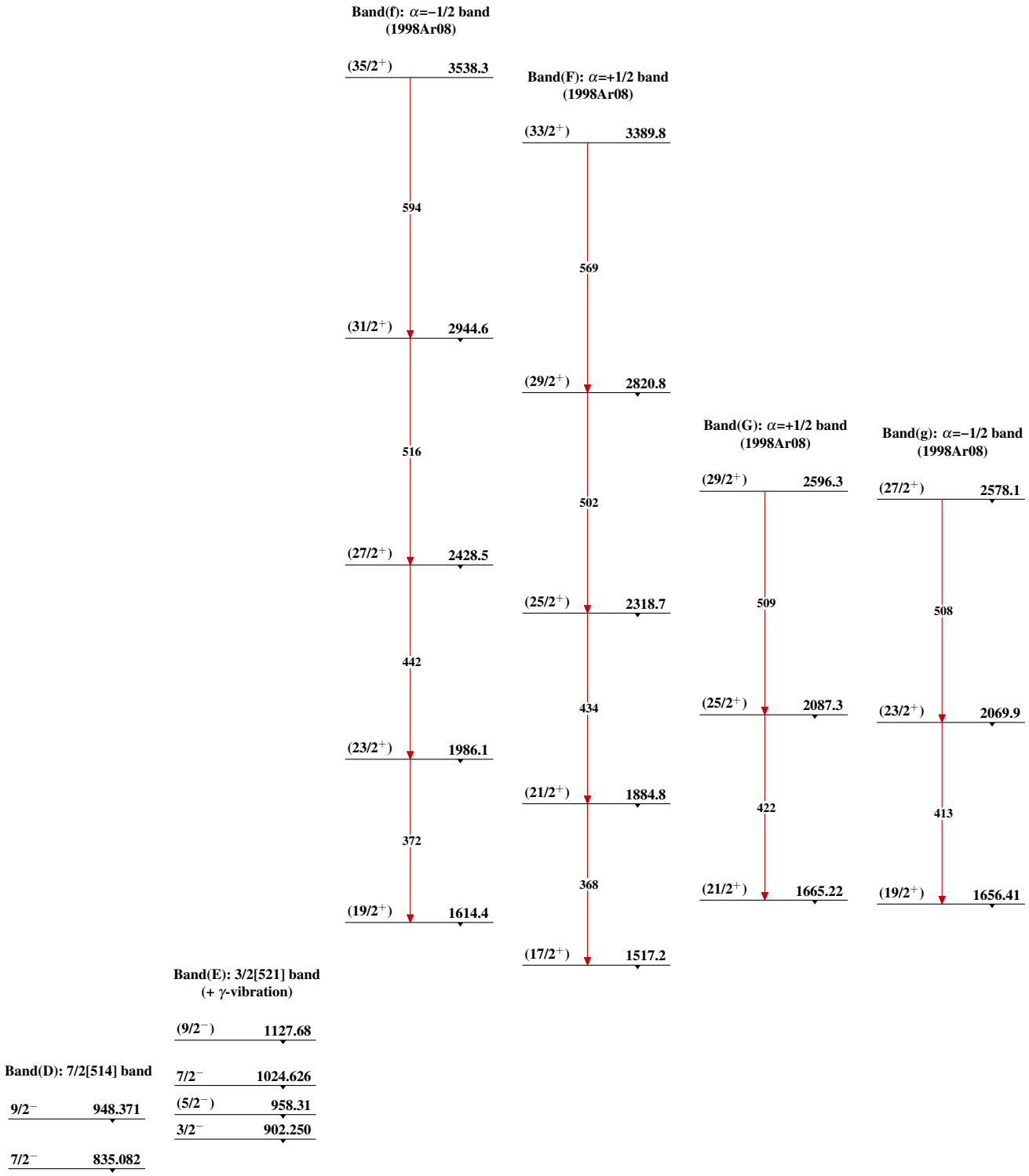
$^{171}_{70}Yb_{101}$

Adopted Levels, Gammas



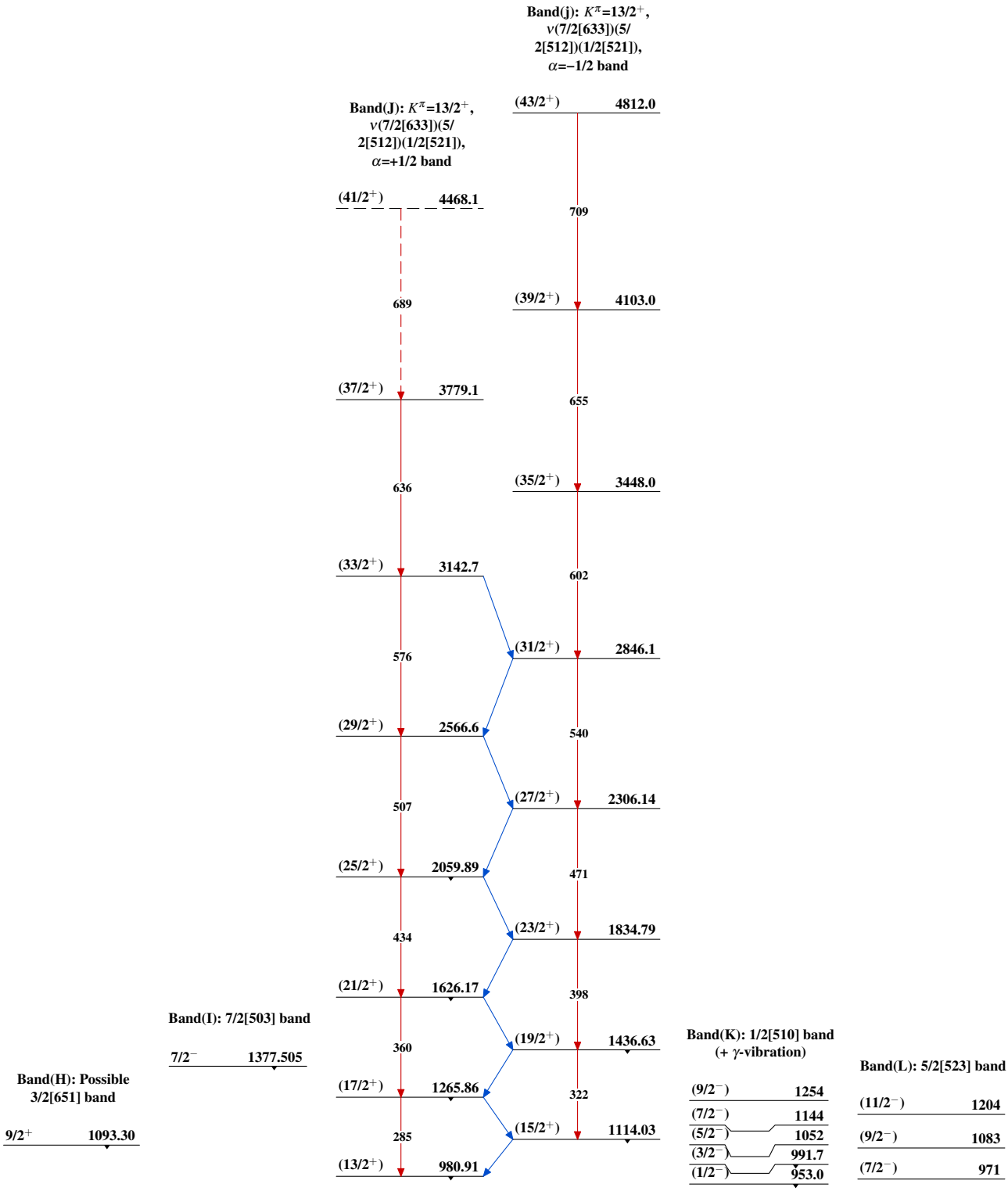
$^{171}_{70}Yb_{101}$

Adopted Levels, Gammas (continued)



$^{171}_{70}Yb_{101}$

Adopted Levels, Gammas (continued)



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Adopted Levels, Gammas (continued)

Band(N): Possible 3/2[512] band

$(7/2^-)$ **1486**

$(5/2^-)$ **1395**

$(3/2^-)$ **1331.2**

Band(M): 5/2[642] band

$(13/2^+)$ **1119**

$(9/2)^+$ **984.037**

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