Adopted Levels, Gammas

History

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

Q(β^-)=−683.7 *20*; S(n)=7666.7 *10*; S(p)=5511.0 *13*; Q(α)=1619.0 *17* 2012Wa38
Note: Current evaluation has used the following Q record −686.8 197666.7 *105510*.1 *131620*.0 *16* 2003Au03.

^{175}Lu Levels

Cross Reference (XREF) Flags

A	^{175}Yb β^- decay	E	^{174}Yb(^{3}He,d)	I	^{175}Lu(^{238}U,^{238}U′γ)
B	^{175}Hf ε decay	F	^{174}Yb(α,t)	J	^{175}Lu(n,n′γ)
C	Coulomb excitation	G	^{176}Lu(d,t)		
D	^{176}Yb(p,2nγ)	H	^{175}Lu(γ,γ')		

E(level)[†]	J$^\pi$[#]	$T_{1/2}$	XREF	Comments
0.0[@]	7/2$^+$	stable	ABCDEFGHIJ	μ=+2.2327 *11* Q=+3.49 *2* J$^\pi$: optical spectroscopy (1969Fu11). L=4 in (α,t) and (^{3}He,d). $T_{1/2}$: partial $T_{1/2}(\alpha)>10\times10^{17}$ y (1954Po27). μ: Nuclear magnetic resonance optical pumping (1989Ra17). Q: Muonic x rays (1989Ra17).
113.806[@] *4*	9/2$^+$	90 ps *4*	ABCD FGHIJ	μ=+2.01 *15* J$^\pi$: 113γ M1+E2 to 7/2$^+$. L=4 in (α,t); g.s. band member. $T_{1/2}$: Using the Limitation of Relative Statistical Weight Method(lwm) of 101 ps *7* (1960Bl10), 99 ps *9* (1965Ro17), 106 ps *11* (1965Ay04) from ^{175}Yb β^- decay; 90 ps *10* (1963Li05) from ^{175}Hf ε decay; 95 ps *6* (1971Da17) from Coulomb excitation; 110 ps *10* (1962Be46) by center-of-gravity method; and 82 ps *3* from B(E2)=2.28 *4* in Coulomb excitation. Weighted average of these data is 89.6 ps *22*(internal) 4(external). μ: IMPAC (1989Ra17).
251.465[@] *7*	11/2$^+$	32.4 ps *16*	A CD G IJ	μ=+2.6 *10* J$^\pi$: Intraband 137γ M1+E2 to 9/2$^+$. E2 251γ to 7/2$^+$ g.s. $T_{1/2}$: from weighted average of 29.1 ps *14* (from RDM) (1981Sk01) and 32.5 ps *10* in Coulomb excitation. μ: IMPAC (1989Ra17).
343.38[&] *8*	5/2$^+$	0.281 ns *10*	B Def H J	XREF: e(347)f(347). J$^\pi$: 343γ M1+E2 to 7/2$^+$. E2 229.6γ to 9/2$^+$. From Alaga rules in ^{175}Lu(γ,γ'). $T_{1/2}$: from 1991De24 in ^{175}Hf ε decay. Other value: 0.26 ns *2* (1969Ho18).
353.48[a] *13*	5/2$^-$	1.49 μs *7*	B Def J	XREF: e(347)f(347). J$^\pi$: By analogy to the ^{173}Yb isomer, which also supported by the large partial cross section observed in ^{176}Yb(p,2n) reaction (1965Bj01). 343γ M1+E2 to 7/2$^+$. $T_{1/2}$: from ^{175}Hf ε decay (1969Jo16). Other: 1.3 μs *1* (1965Bj01).
370.79[a] *15*	(1/2$^-$)		B Def J	XREF: e(347)f(347).
396.328[b] *7*	9/2$^-$	3.28 ns *6*	A D J	J$^\pi$: 396γ E1 M2 to 7/2$^+$, 145γ E1(+M2) to 11/2$^+$. $T_{1/2}$: weighted average of 3.25 ns *10* (1962Be46), 3.29 ns *16* (1965Ay01) and 3.31 ns *10* (1966Mc08), from ^{175}Yb β^- decay.
412.39[@] *7*	13/2$^+$	12.7 ps *4*	CD G I	J$^\pi$: 161γ M1+E2 to 11/2$^+$. 298.7γ E2 to 9/2$^+$ 113.8 level; g.s. band member.

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Adopted Levels, Gammas (continued)

^{175}Lu Levels (continued)

E(level)[†]	J$^{\pi}$[#]	$T_{1/2}$	XREF	Comments
414.98[a] *18*	(9/2)$^-$		DEF J	XREF: F(418). J$^{\pi}$: L=5 in (α,t) and (^{3}He,d). Member of the 1/2[541] band.
432.74[&] *8*	7/2$^+$	<0.1 ns	B D J	J$^{\pi}$: 319γ M1+E2 to 9/2$^+$, 89γ M1+E2 to 5/2$^+$. $T_{1/2}$: from ^{175}Hf ε decay (1969Ho18).
514.66[a] *14*	(3/2$^-$)		B Def J	XREF: e(518)f(529). J$^{\pi}$: 161γ M1 to 5/2$^-$. Rotational parameters A=7.35 and B=8.4 of the 1/2[541] band (1974Fo01).
529.25[b] *10*	(11/2$^-$)		DeF J	XREF: e(518).
546.4[&] *3*	(9/2$^+$)		D J	
562.3[a] *4*	(13/2$^-$)		D J	J$^{\pi}$: 147.4γ E2 by comparison with the neighboring Lu isotope (1974Fo01).
595.25[@] *8*	15/2$^+$	7.65 ps *13*	CD G I	J$^{\pi}$: 183γ M1+E2 to 13/2$^+$. 343.7γ E2 to 11/2$^+$.
626.53[c] *15*	(1/2$^+$)	10.6 ns *5*	D J	J$^{\pi}$: 1/2[411] bandhead. 1/2[411] band rotational parameters A=13.67 and B=−10.4 (1974Fo01). $T_{1/2}$: weighted average of 10 ns *1* (1974Wi06) and 10.7 ns *5* (1974Fo01) in ^{174}Yb(p,2nγ).
632.76[c] *11*	(3/2$^+$)		DEF J	XREF: E(634)F(635).
672.83[a] *15*	(7/2$^-$)		Def J	XREF: e(674)f(679).
684.3[&] *3*	(11/2$^+$)		Def J	XREF: e(674)f(679).
685.32[b] *14*	(13/2$^-$)		Def J	XREF: e(674)f(679).
757.35[c] *13*	(5/2$^+$)		DEF J	XREF: E(762)F(761).
773.44[c] *14*	(7/2$^+$)		D J	
798.1[a] *9*	(17/2$^-$)		D J	J$^{\pi}$: Intraband 235.6γ E2 by comparison with the neighboring Lu isotopes (1974Fo01).
799.95[@] *9*	17/2$^+$	4.05 ps *14*	CD G I	XREF: G(804). J$^{\pi}$: Intraband 205γ M1+E2 to 15/2$^+$; E2 387.6γ to 13/2$^+$ at 412.5 keV level.
845.1[&] *7*	(13/2$^+$)		J	
863.7[b] *7*	(15/2$^-$)		D J	
≈866			F	
886.3[a] *4*	(11/2$^-$)		DEF J	XREF: E(881)F(891).
≈960			E	
990.15[c] *15*	(9/2$^+$)		D J	
998.9[d] *4*	(3/2$^-$)		DE	J$^{\pi}$: L=(1) in (^{3}He,d). 3/2[532] bandhead from the Nilson model predictions (1971On02).
1005.2[g] *10*	(7/2$^-$)		J	J$^{\pi}$: From a good rotational model fit for an I(I+1) sequence with K=7/2, assuming the established levels at 9/2$^-$ to 13/2$^-$ from a rotational band and the 1005.2 keV level as a bandhead in ^{175}Lu(n,n$'\gamma$).
1019.59[c] *17*	(11/2$^+$)		D J	
1024.39[@] *10*	19/2$^+$	2.25 ps *17*	CD I	J$^{\pi}$: Intraband 224γ M1+E2 to 17/2$^+$; 429.1γ E2 to 15/2$^+$ at 595.4 keV level.
1028.2[&] *9*	15/2$^+$		J	
1063.3[d] *3*	(5/2)$^-$		DEF J	XREF: E(1066)F(1068). J$^{\pi}$: L=3 in (α,t) and (^{3}He,d). 3/2[532] band member.
1064.2[b] *8*	(17/2$^-$)		D	
1112.2[g] *7*	(9/2$^-$)		J	
1121.8[a] *13*	(21/2$^-$)		D J	J$^{\pi}$: Intraband 323.7γ E2 in comparison with the neighboring Lu isotopes (1974Fo01).
1150.7[e] *3*	(3/2$^+$)		D J	
1167.3[a] *8*	(15/2$^-$)		D J	

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Adopted Levels, Gammas (continued)

^{175}Lu Levels (continued)

E(level)[†]	Jπ[#]	$T_{1/2}$	XREF	Comments
1180[d] *2*	(7/2)⁻		EF	XREF: E(1168). Jπ: L=3 in (α,t) and (^{3}He,d). Member of the 3/2[532] band.
1219.0[e] *3*	(5/2⁺)		DEF J	XREF: E(1223)F(1222).
1233.2?[&]	(17/2⁺)		J	
1242.2[g] *8*	(11/2⁻)		J	
1268.68[@] *11*	(21/2⁺)	1.52 ps *12*	C	Jπ: Intraband 469γ E2 to 17/2⁺.
1270[d] *2*	(9/2)⁻		EF	XREF: E(1273). Jπ: L=5 in (α,t) and (^{3}He,d). Member of the 3/2[532] band.
1285.0[b] *10*	(19/2⁻)		D J	
1311.6[e] *10*	(7/2⁺)		J	Jπ: From the 538.2γ decay pattern to the 7/2⁺ level at 773.0 of 1/2[411] band and the good agreement with the level energies prediction based on a rotational parameter 13.6 keV extracted from the 5/2⁺ to 3/2⁺ energy difference in ^{175}Lu(n,n′γ).
1317[f] *2*	(3/2)⁻		DEF	Jπ: L=1 in (α,t) and (^{3}He,d). The characteristic dip at θ=15° of the 1320 keV peak in (^{3}He,d) combined with a spectroscopic factor similar to that of the 1166 keV state in ^{173}Lu.
1317.4[c] *8*	(13/2⁺)		J	
1346	(3/2⁺)		EF	XREF: E(1349). Jπ: L=(2) in (α,t) and (^{3}He,d) with a population strength about one third of that expected for the 3/2[402] band.
1363.8[c] *11*	(15/2⁺)		J	
1392.2[h] *6*	(19/2⁺)	984 μs *30*	I	Jπ: From systematics of reduced γ-ray transition probabilities for this isomer in other N=104 neighboring nuclei. $T_{1/2}$: 984 μs *13*(stat) 30 (sys) in (n,n′γ) from 797γ single spectrum during the out-of-beam period gated on the event times 3.375<$t_γ$>6.575 after a macropulse subtraction from a spectrum gated on the event times 0.175<$t_γ$>3.375. Other value: 930 μs *80* from (^{238}U,^{238}U′γ).
1394.1[g] *12*	(13/2⁻)		J	
1401[‡] *2*			G	
1415[f]	(7/2)⁻		EF	XREF: E(1418). Jπ: L=3 in (α,t) and (^{3}He,d). Member of the 1/2[530] band.
1434.6[e] *11*	(9/2⁺)		J	Jπ: From the 444.4γ decay pattern to the 9/2⁺ level at 989.7 of 1/2[411] band and the good agreement with the level energies predicted based on a rotational parameter 13.6 keV extracted from the 5/2⁺ to 3/2⁺ energy difference in ^{175}Lu(γ,γ′).
≈1437			F	
1511[‡] *3*			EFG	XREF: E(1516)F(1513).
1526.8[b] *14*	(21/2⁻)		J	
1530.78[@] *12*	(23/2⁺)	1.05 ps *9*	C	Jπ: 506γ (E2) to 17/2⁺, 262γ to 19/2⁺.
1544.9[i] *7*	(7/2⁻)		H	
1566			EF	XREF: E(1563).
1574.1[e] *11*	(11/2⁺)		J	Jπ: From the 554.5γ decay pattern to the 11/2⁺ level at 1018.9 of 1/2[411] band and the good agreement with the level energies predicted energy based on a rotational parameter 13.6 keV extracted from the 5/2⁺ to 3/2⁺ energy difference in ^{175}Lu(γ,γ′).
1588.0 *10*			GH	XREF: G(1590).
1611.4[i] *7*	(9/2⁻)		EF H	XREF: F(1609). Jπ: 1611γ to 7/2⁺ g.s.
1622 *2*			G	
1638[f]	(11/2⁻)		EF	XREF: E(1642).

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Adopted Levels, Gammas (continued)

^{175}Lu Levels (continued)

E(level)[†]	J^{π}[#]	$T_{1/2}$	XREF	Comments
				J^{π}: L=(5) in (α,t) and (^{3}He,d). Member of the 1/2[530] band.
1644 *2*			G	
1689.0 *10*			H	
1693.0 *10*			H	
1704[f]	(9/2$^-$)		F	J^{π}: L=(5) in (α,t) and (^{3}He,d). Possible member of the 1/2[530] band.
1715.0 *10*			H	
1725.0 *10*			H	
1732 *2*			G	
≈1752			EF	XREF: E(1769).
1785 *2*			G	
1799[‡] *5*			EFG	XREF: E(1803)F(1797).
1810.78[@] *15*	(25/2$^+$)	0.72 ps *9*	C	J^{π}: Intraband 542γ to 21/2$^+$, 280γ to 23/2$^+$.
1816.0 *10*			GH	XREF: G(1818).
1827.0 *10*			H	
1874.0 *10*			GH	XREF: G(1870).
1899			EFG	XREF: E(1902)G(1908).
1931.0 *10*			H	
1945.0 *7*			H	
1949.0 *10*			H	
1977			E	
1981[‡] *3*			G	
1992.0 *10*			H	
2012.0 *7*			H	
2089.0 *10*			H	
2105.88[@] *16*	(27/2$^+$)		C	J^{π}: Intraband 575.1γ to 23/2$^+$ level.
2123.0 *10*			H	
2207 *3*			G	
2286.0 *7*			H	
2297.0 *10*			H	
2320.0 *10*			H	
2335.0 *10*			H	
2379.0 *7*			H	
2386.0 *10*			H	
2394.0 *10*			H	
2410.0 *10*			H	
2419.0 *10*			H	
2442.0 *7*			H	
2497.0 *10*			H	
2527 *4*			G	
2548.0 *10*			H	
2707.0 *10*			H	
2713.0 *10*			H	
2742.0 *10*			H	
2760.0 *10*			H	
2833.0 *10*			H	
2843.0 *10*			H	
2865.0 *10*			H	
2890.0 *10*			H	
2897.0 *10*			H	
2952.0 *10*			H	
2998.0 *10*			H	
3002.0 *10*			H	
3011.0 *10*			H	
3022.0 *10*			H	
3029.0 *10*			H	

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Adopted Levels, Gammas (continued)

^{175}Lu Levels (continued)

E(level)†	XREF	E(level)†	XREF	E(level)†	XREF	E(level)†	XREF
3066.0 *10*	H	3267.0 *10*	H	3329.0 *10*	H	3398.0 *10*	H
3172.0 *10*	H	3286.0 *10*	H	3333.0 *10*	H	3404.0 *10*	H
3238.0 *10*	H	3293.0 *10*	H	3343.0 *10*	H	3524.0 *10*	H
3243.0 *10*	H	3300.0 *10*	H	3347.0 *10*	H		

† Deduced by evaluator from a least-squares fit to adopted γ-ray energies, except as noted.
‡ From ^{176}Lu(d,t)^{175}Lu. For tentative spin assignments see ^{176}Lu(d,t)^{175}Lu.
# Assignments are based on rotational structure, γ-ray decay patterns and systematics of level energies in other odd-A Lu isotopes.
@ Band(A): 7/2(404) band.
& Band(B): 5/2(402) band.
a Band(C): 1/2(541) band.
b Band(D): 9/2(514) band.
c Band(E): 1/2(411) band.
d Band(F): 3/2(532)? band.
e Band(G): 3/2(411)? band.
f Band(H): 1/2(530)? band.
g Band(I): 7/2(523) band.
h Band(J): K=19/2 : Probable configuration=(π7/2[404])+(ν7/2[514])+(ν5/2[512]).
i Band(K): $0^-\otimes$7/2[404] Vibrational band.

Adopted Levels, Gammas (continued)

$\gamma(^{175}Lu)$

E_i(level)	J_i^π	E_γ[†]	I_γ[g]	E_f	J_f^π	Mult.[g]	δ[a]	α[i]	Comments
113.806	9/2+	113.805[&] *4*	100	0.0	7/2+	M1+E2[&]	+0.464 *5*	2.51	B(M1)(W.u.)=0.0354 *14*; B(E2)(W.u.)=260 *11*
251.465	11/2+	137.658[&] *6*	100.0 *7*	113.806	9/2+	M1+E2[&]	+0.480 *17*	1.42	B(M1)(W.u.)=0.063 *3*; B(E2)(W.u.)=339 *25*
		251.474[&] *17*	77.1 *7*	0.0	7/2+	E2[&]		0.133	B(E2)(W.u.)=68.7 *24*
343.38	5/2+	229.6[b] *6*	0.813[b] *20*	113.806	9/2+	E2[b]		0.178	B(E2)(W.u.)=0.39 *8*
		343.40[b] *8*	100[b]	0.0	7/2+	M1+E2[b]	−0.27[b] *2*	0.118	B(M1)(W.u.)=0.0017 *5*; B(E2)(W.u.)=0.45 *16*
353.48	5/2−	353.3[b] *2*	100	0.0	7/2+	E1[b]		0.0140	B(E1)(W.u.)=3.24×10^{-9} *16*
370.79	(1/2−)	17[#j]		353.48	5/2−				
396.328	9/2−	144.863[&] *5*	5.11[&] *5*	251.465	11/2+	E1(+M2)[&]	−0.014 *23*	0.134 *10*	B(E1)(W.u.)=7.0×10^{-7} *3*
		282.522[&] *14*	46.6[&] *3*	113.806	9/2+	E1(+M2)[&]	0.06 *6*	0.0271	B(E1)(W.u.)=8.62×10^{-7} *24*
		396.329[&] *20*	100.0[&] *15*	0.0	7/2+	E1+M2[&]	+0.105 *8*	0.047	B(E1)(W.u.)=6.59×10^{-7} *18*; B(M2)(W.u.)=0.21 *4*
412.39	13/2+	160.9[c] *1*	50.8 *5*	251.465	11/2+	M1+E2	0.42[h] *2*	0.917	B(M1)(W.u.)=0.088 *4*; B(E2)(W.u.)=264 *24*
		298.7[c] *1*	100.0 *9*	113.806	9/2+	E2		0.0783	B(E2)(W.u.)=157 *6*
414.98	(9/2)−	62[#]		353.48	5/2−				
432.74	7/2+	89.36[b] *1*	100[b] *8*	343.38	5/2+	M1+E2[b]	+0.12[b] *1*	5.22	
		318.9[b] *6*	7.0[b] *17*	113.806	9/2+	M1+E2[b]	+0.146[b] *12*	0.147	
		433.0[b] *5*	59.8[b] *10*	0.0	7/2+	M1[b]		0.0664	
514.66	(3/2−)	143.89 *10*	35 *6*	370.79	(1/2−)				I_γ: From ^{175}Lu(n,n′γ).
		161.20 *10*	100	353.48	5/2−	M1[b]		0.970	I_γ: From ^{175}Lu(n,n′γ).
529.25	(11/2−)	132.92 *10*	100	396.328	9/2−				
546.4	(9/2+)	113.6 *4*		432.74	7/2+				
		203.0 *4*		343.38	5/2+				
562.3	(13/2−)	147.4 *4*	100	414.98	(9/2)−				
595.25	15/2+	182.9[c] *1*	37.4 *6*	412.39	13/2+	M1+E2	0.40[h] *4*	0.640	B(M1)(W.u.)=0.091 *4*; B(E2)(W.u.)=190 *40*
		343.7[c] *1*	100.0 *10*	251.465	11/2+	E2		0.0517	B(E2)(W.u.)=159 *4*
626.53	(1/2+)	111.9 *4*	10.7[‡]	514.66	(3/2−)				
		255.72 *10*	100[‡]	370.79	(1/2−)				
632.76	(3/2+)	261.9 *4*	23 *3*	370.79	(1/2−)				I_γ: From (n,n′γ). 15 in (p,2nγ).
		279.25 *10*	38 *4*	353.48	5/2−				I_γ: From (n,n′γ). 33 in (p,2nγ).
		289.43 *10*	100	343.38	5/2+				I_γ: From (n,n′γ).
672.83	(7/2−)	158.23 *10*		514.66	(3/2−)				
		257.86 *10*	94 *11*	414.98	(9/2)−				I_γ: From (n,n′γ).
		319.29 *10*	100	353.48	5/2−				I_γ: From (n,n′γ).
684.3	(11/2+)	137.9 *4*		546.4	(9/2+)				
		251.5 *4*		432.74	7/2+				
685.32	(13/2−)	156.07 *10*	100	529.25	(11/2−)				
		289.1[@]	15[@] *2*	396.328	9/2−				

$^{175}_{71}Lu_{104}$-6

Adopted Levels, Gammas (continued)

γ(^{175}Lu) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[g]	E_f	J_f^π	Mult.[g]	δ[a]	α[i]	Comments
757.35	(5/2$^+$)	124.57 *10*	100	632.76	(3/2$^+$)				
		130.80 *10*	15 *3*	626.53	(1/2$^+$)				I_γ: From (n,n′γ). 27 in (p,2nγ).
		413.7[@]	13[@] *2*	343.38	5/2$^+$				
773.44	(7/2$^+$)	140.73 *10*	100	632.76	(3/2$^+$)				
		226.4[@]	19[@] *3*	546.4	(9/2$^+$)				
		340.4[@]	46[@] *6*	432.74	7/2$^+$				
		419.9 *4*	28 *4*	353.48	5/2$^-$				I_γ: From (n,n′γ).
798.1	(17/2$^-$)	235.6	100	562.3	(13/2$^-$)				
799.95	17/2$^+$	204.7[c] *1*	23.5 *7*	595.25	15/2$^+$	M1+E2	0.39[h] *4*	0.467	B(M1)(W.u.)=0.094 *6*; B(E2)(W.u.)=150 *30* I_γ: In ^{176}Yb(p,2nγ) 61.
		387.6[c] *1*	100.0 *13*	412.39	13/2$^+$	E2		0.0368	B(E2)(W.u.)=199 *8*
845.1	(13/2$^+$)	160.9[#]		684.3	(11/2$^+$)				
		298.5[#]		546.4	(9/2$^+$)				
863.7	(15/2$^-$)	178.8[@]	100[@]	685.32	(13/2$^-$)				
		334.8[@]	33[@]	529.25	(11/2$^-$)				
886.3	(11/2$^-$)	213.2	17[‡] *3*	672.83	(7/2$^-$)				
		324.0 *4*	92[‡] *12*	562.3	(13/2$^-$)				
		471.3 *4*	100[‡]	414.98	(9/2)$^-$				
990.15	(9/2$^+$)	216.74 *10*	100	773.44	(7/2$^+$)				I_γ: From (n,n′γ).
		232.78 *10*	70 *9*	757.35	(5/2$^+$)				I_γ: From (n,n′γ). 50 in (p,2nγ).
998.9	(3/2$^-$)	484.2 *4*		514.66	(3/2$^-$)				
		628.1 *4*		370.79	(1/2$^-$)				
1005.2	(7/2$^-$)	608.9[#]		396.328	9/2$^-$				
		1005.3[#j]		0.0	7/2$^+$				
1019.59	(11/2$^+$)	246.15 *10*	100	773.44	(7/2$^+$)				
1024.39	19/2$^+$	224.5[c] *1*	17 *1*	799.95	17/2$^+$	(M1+E2)		0.29 *10*	I_γ: 54 in ^{176}Yb(p,2nγ).
		429.1[c] *1*	100.0 *21*	595.25	15/2$^+$	E2		0.0278	B(E2)(W.u.)=229 *20*
1028.2	15/2$^+$	183.1[#]		845.1	(13/2$^+$)				
		343.9[#]		684.3	(11/2$^+$)				
1063.3	(5/2)$^-$	548.6 *4*		514.66	(3/2$^-$)				
		709.8 *4*		353.48	5/2$^-$				
1064.2	(17/2$^-$)	200.4[@]	100[@]	863.7	(15/2$^-$)				
		379.1[@]	41[@] *6*	685.32	(13/2$^-$)				
1112.2	(9/2$^-$)	582.8[@]	100[@]	529.25	(11/2$^-$)				
		716.1[@]	27[@] *5*	396.328	9/2$^-$				
1121.8	(21/2$^-$)	323.7	100	798.1	(17/2$^-$)				

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Adopted Levels, Gammas (continued)

γ(^{175}Lu) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[g]	E_f	J_f^π	Mult.[g]	α[i]	Comments
1150.7	(3/2$^+$)	518.1 *4*	100	632.76	(3/2$^+$)			I_γ: From (n,n′γ).
		524.0 *4*	93 *14*	626.53	(1/2$^+$)			I_γ: From (n,n′γ).
1167.3	(15/2$^-$)	281.3[#]		886.3	(11/2$^-$)			
		369.1	100	798.1	(17/2$^-$)			
		604.8[#]		562.3	(13/2$^-$)			
1219.0	(5/2$^+$)	461.6 *4*	87 *13*	757.35	(5/2$^+$)			I_γ: From (n,n′γ).
		586.4 *4*	100	632.76	(3/2$^+$)			I_γ: From (n,n′γ).
1233.2?	(17/2$^+$)	204.9[#][j]		1028.2	15/2$^+$			
		388.0[#][j]		845.1	(13/2$^+$)			
1242.2	(11/2$^-$)	556.8[@]	100[@]	685.32	(13/2$^-$)			
		713.1[@]	69[@] *12*	529.25	(11/2$^-$)			
1268.68	(21/2$^+$)	244.3[c] *1*		1024.39	19/2$^+$			
		468.7[c] *1*	100 *3*	799.95	17/2$^+$	E2	0.0220	B(E2)(W.u.)=277 *25*
1285.0	(19/2$^-$)	220.9[@]	85[@]	1064.2	(17/2$^-$)			
		421.3[@]	100[@] *19*	863.7	(15/2$^-$)			
1311.6	(7/2$^+$)	538.2[@]	100[@]	773.44	(7/2$^+$)			
1317.4	(13/2$^+$)	297.9[@]	50[@] *8*	1019.59	(11/2$^+$)			
		327.2[@]	100[@]	990.15	(9/2$^+$)			
1363.8	(15/2$^+$)	344.2[@]	100[@]	1019.59	(11/2$^+$)			
1392.2	(19/2$^+$)	368[f]		1024.39	19/2$^+$			
		592[f]		799.95	17/2$^+$			
		797[f]		595.25	15/2$^+$			
1394.1	(13/2$^-$)	530.4[@]	100[@]	863.7	(15/2$^-$)			
1434.6	(9/2$^+$)	444.4[@]	100[@]	990.15	(9/2$^+$)			
1526.8	(21/2$^-$)	241.8[@]	100[@]	1285.0	(19/2$^-$)			
1530.78	(23/2$^+$)	262.1[c] *1*		1268.68	(21/2$^+$)			
		506.4[c] *1*		1024.39	19/2$^+$	(E2)	0.0182	B(E2)(W.u.)=270 *40*
1544.9	(7/2$^-$)	1431[d]	22[d] *3*	113.806	9/2$^+$			
		1545[d]	100[d]	0.0	7/2$^+$			
1574.1	(11/2$^+$)	554.5[@]	100[@]	1019.59	(11/2$^+$)			
1588.0		1588[e]	100	0.0	7/2$^+$			
1611.4	(9/2$^-$)	1498[d]	45[d]	113.806	9/2$^+$			
		1611[d]	100[d] *21*	0.0	7/2$^+$			
1689.0		1689[e]	100	0.0	7/2$^+$			
1693.0		1693[e]	100	0.0	7/2$^+$			

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Adopted Levels, Gammas (continued)

γ(^{175}Lu) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[g]	E_f	J_f^π
1715.0		1715[e]	100	0.0	7/2+
1725.0		1725[e]	100	0.0	7/2+
1810.78	(25/2+)	280[c]		1530.78	(23/2+)
		542.1[c] *1*		1268.68	(21/2+)
1816.0		1816[e]	100	0.0	7/2+
1827.0		1827[e]	100	0.0	7/2+
1874.0		1874[e]	100	0.0	7/2+
1931.0		1931[e]	100	0.0	7/2+
1945.0		1831.2[d]	26[d] *10*	113.806	9/2+
		1945[d]	100[d]	0.0	7/2+
1949.0		1949[e]	100	0.0	7/2+
1992.0		1992[e]	100	0.0	7/2+
2012.0		1898.2[d]	55[d] *18*	113.806	9/2+
		2012[d]	100[d]	0.0	7/2+
2089.0		2089[e]	100	0.0	7/2+
2105.88	(27/2+)	575.1[c] *1*	100	1530.78	(23/2+)
2123.0		2123[e]	100	0.0	7/2+
2286.0		2172.2[d]	41[d] *7*	113.806	9/2+
		2286[d]	100[d]	0.0	7/2+
2297.0		2297[e]	100	0.0	7/2+
2320.0		2320[e]	100	0.0	7/2+
2335.0		2335[e]	100	0.0	7/2+
2379.0		2265.2[d]	29[d] *8*	113.806	9/2+
		2379[d]	100[d]	0.0	7/2+
2386.0		2386	100	0.0	7/2+
2394.0		2394[e]	100	0.0	7/2+
2410.0		2410[e]	100	0.0	7/2+
2419.0		2419[e]	100	0.0	7/2+
2442.0		2328.2[d]	94[d] *21*	113.806	9/2+
		2442[d]	100[d]	0.0	7/2+
2497.0		2497[e]	100	0.0	7/2+
2548.0		2548[e]	100	0.0	7/2+
2707.0		2707[e]	100	0.0	7/2+
2713.0		2713[e]	100	0.0	7/2+
2742.0		2742[e]	100	0.0	7/2+
2760.0		2760[e]	100	0.0	7/2+
2833.0		2833[e]	100	0.0	7/2+
2843.0		2843[e]	100	0.0	7/2+
2865.0		2865[e]	100	0.0	7/2+
2890.0		2890[e]	100	0.0	7/2+
2897.0		2897[e]	100	0.0	7/2+
2952.0		2952[e]	100	0.0	7/2+
2998.0		2998[e]	100	0.0	7/2+
3002.0		3002[e]	100	0.0	7/2+
3011.0		3011[e]	100	0.0	7/2+
3022.0		3022[e]	100	0.0	7/2+
3029.0		3029[e]	100	0.0	7/2+
3066.0		3066[e]	100	0.0	7/2+
3172.0		3172[e]	100	0.0	7/2+
3238.0		3238[e]	100	0.0	7/2+
3243.0		3243[e]	100	0.0	7/2+
3267.0		3267[e]	100	0.0	7/2+
3286.0		3286[e]	100	0.0	7/2+
3293.0		3293[e]	100	0.0	7/2+
3300.0		3300[e]	100	0.0	7/2+
3329.0		3329[e]	100	0.0	7/2+
3333.0		3333[e]	100	0.0	7/2+
3343.0		3343[e]	100	0.0	7/2+
3347.0		3347[e]	100	0.0	7/2+
3398.0		3398[e]	100	0.0	7/2+
3404.0		3404[e]	100	0.0	7/2+
3524.0		3524[e]	100	0.0	7/2+

† From ^{176}Yb(p,2nγ), except as noted.
‡ From ^{176}Yb(p,2nγ).
# From ^{175}Lu(n,n′γ).

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Adopted Levels, Gammas (continued)

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

@ From $^{175}Lu(n,n'\gamma)$.
& From ^{175}Yb β^- decay.
a From ^{175}Yb β^- decay, except as noted.
b From ^{175}Hf ε decay.
c From Coulomb excitation.
d From $^{175}Lu(\gamma,\gamma')$.
e From $^{175}Lu(\gamma,\gamma')$.
f From $^{175}Lu(^{238}U,^{238}U'\gamma)$.
g From Coulomb excitation, except as noted.
h From Coulomb excitation.
i 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.
j Placement of transition in the level scheme is uncertain.

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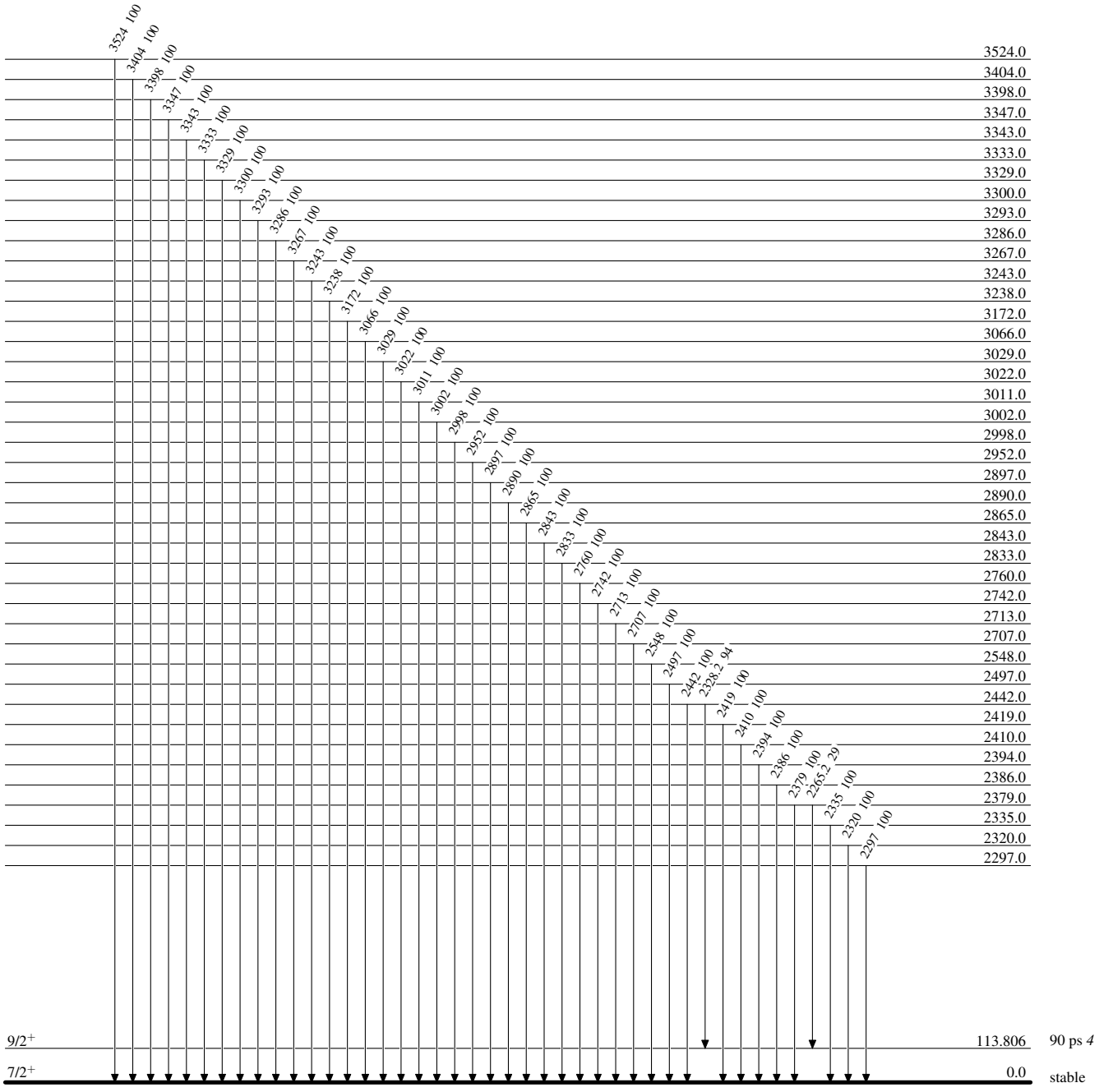
Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level



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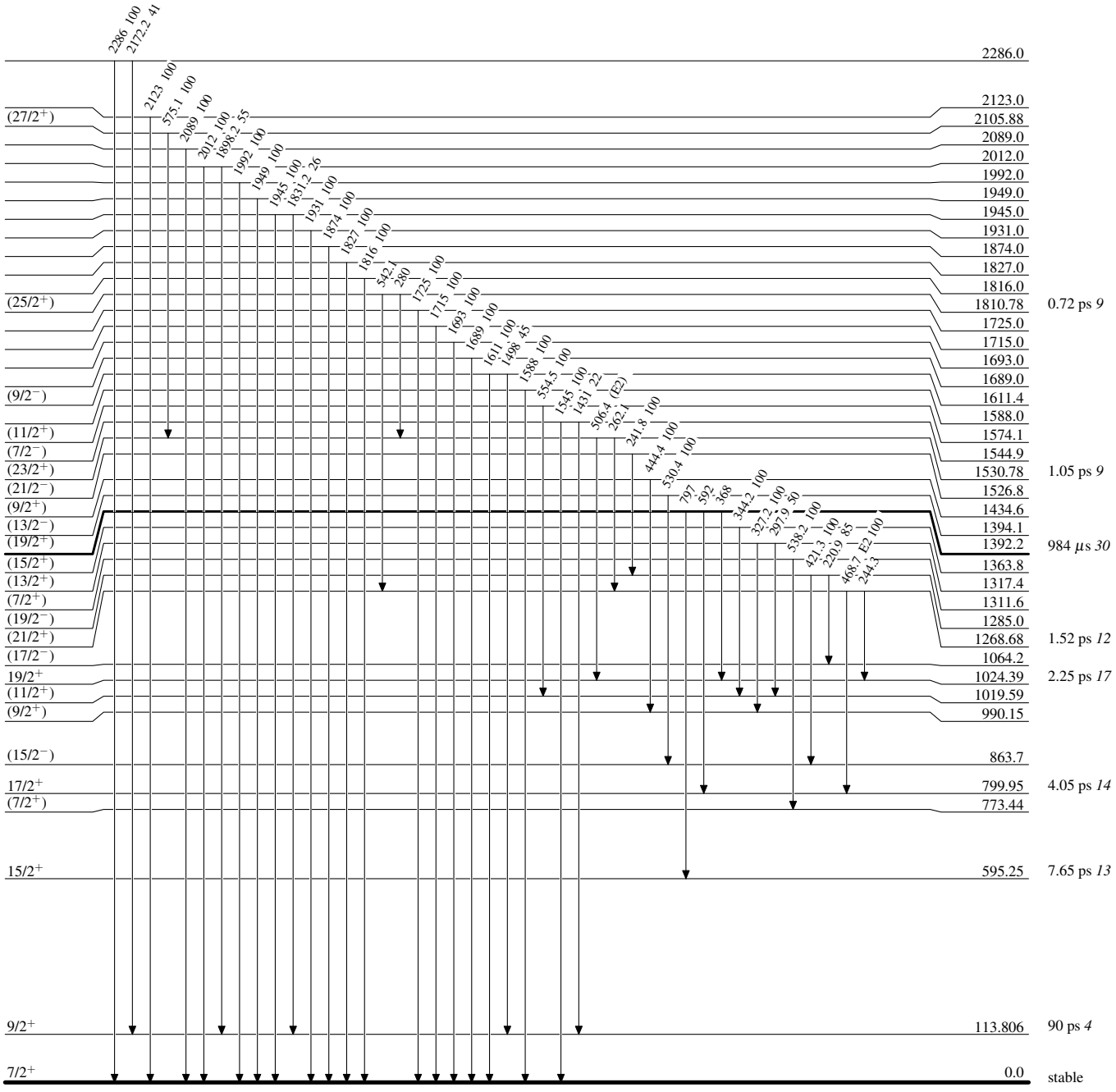
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



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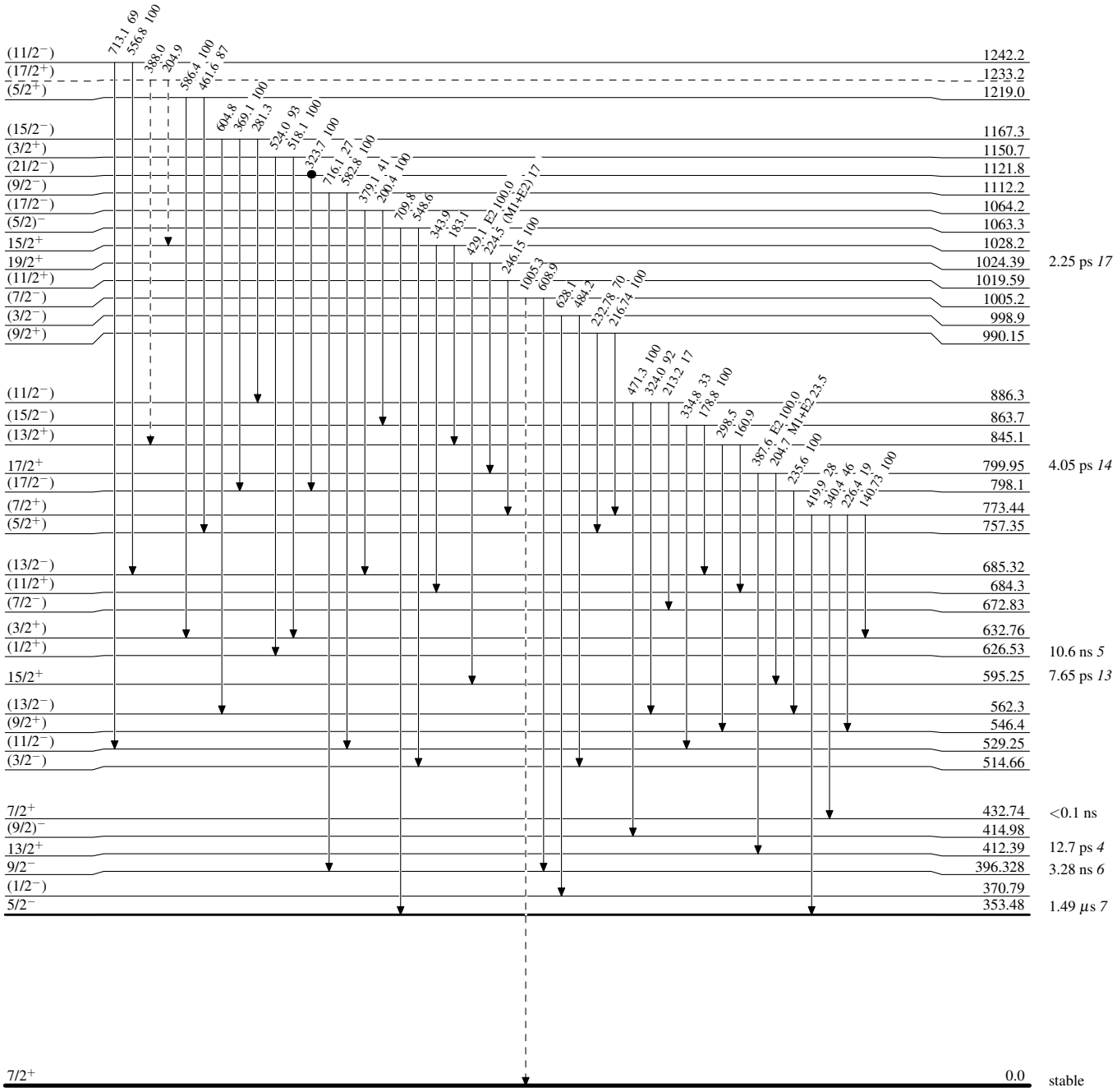
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

Legend: γ Decay (Uncertain); Coincidence



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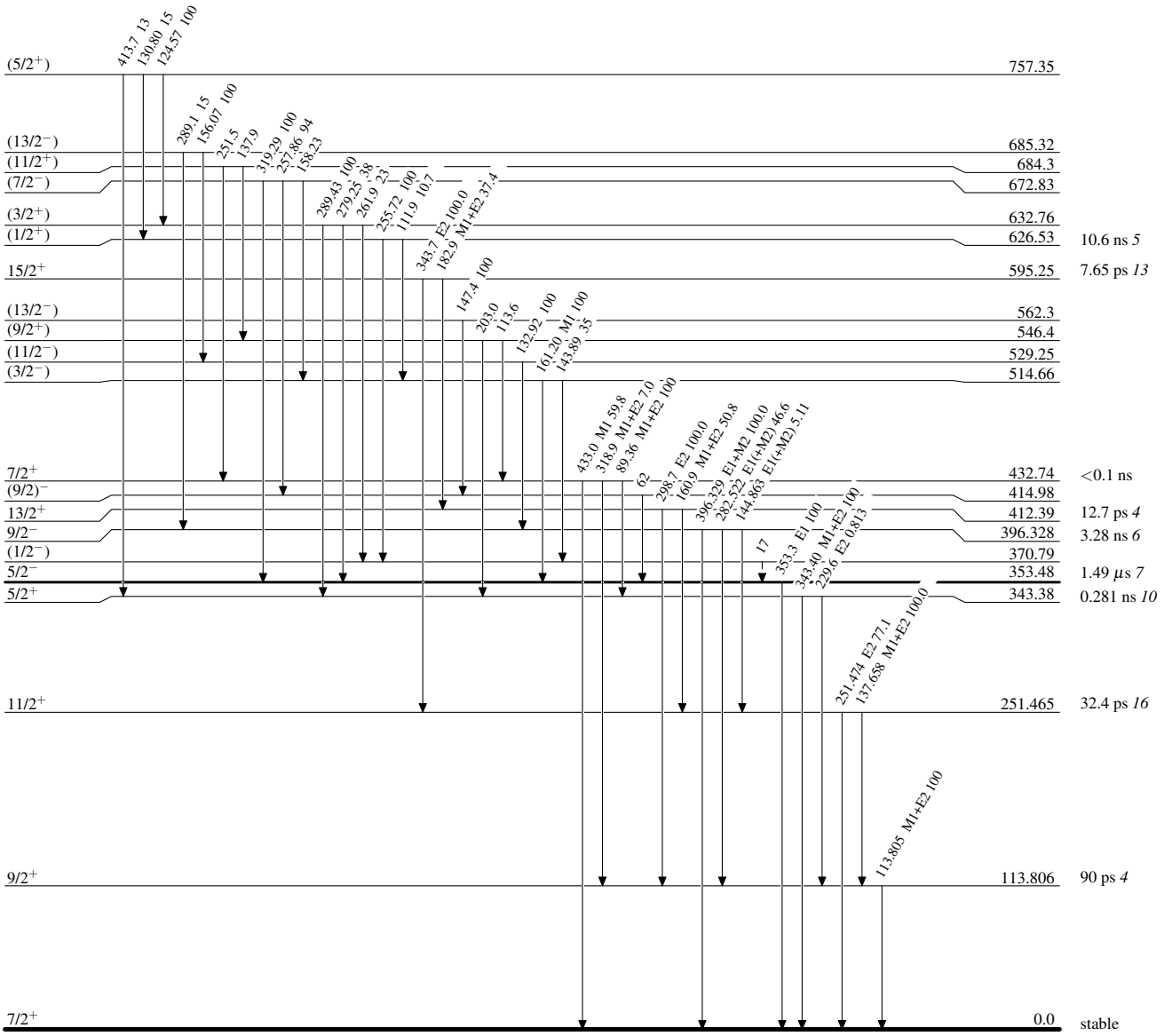
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



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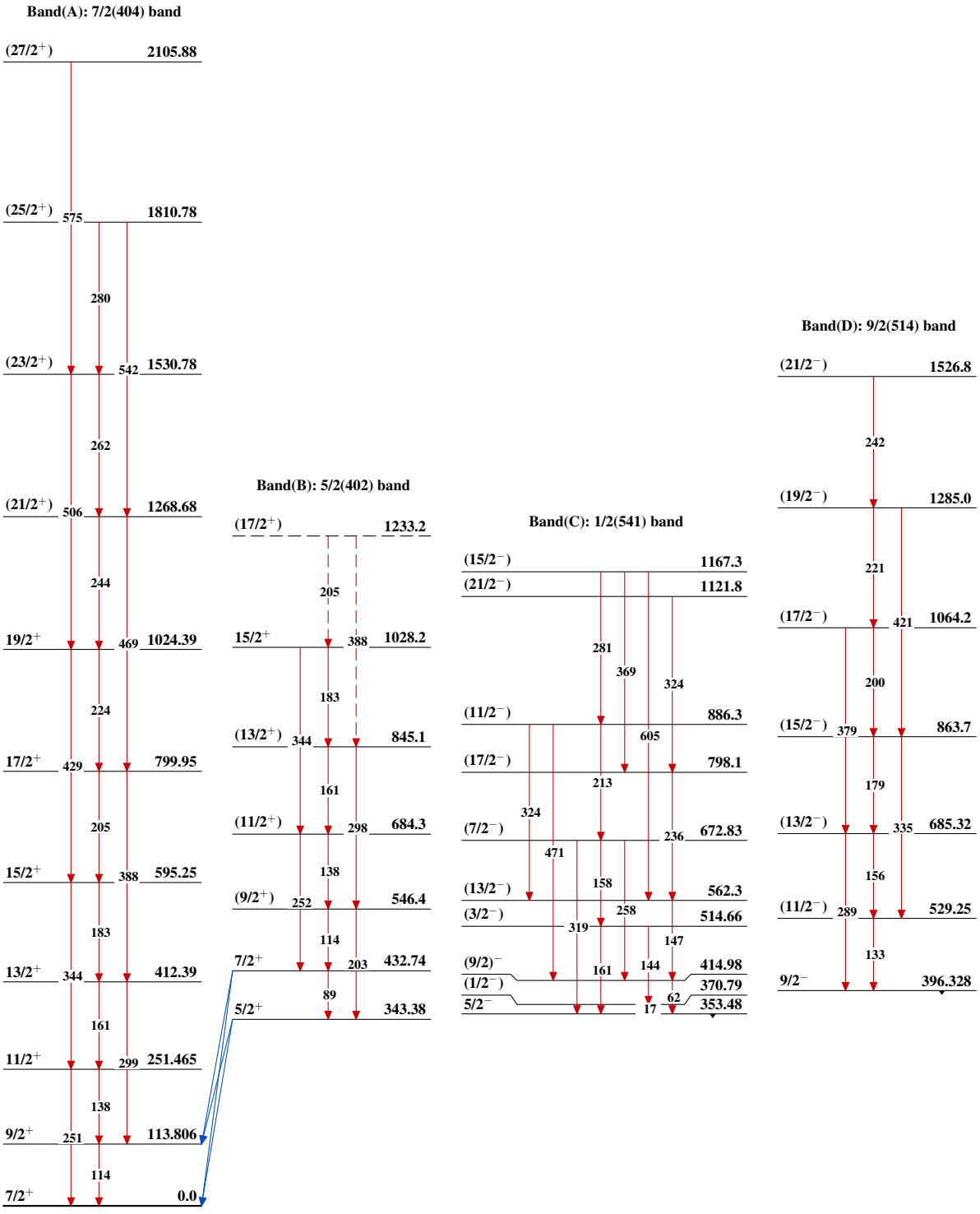
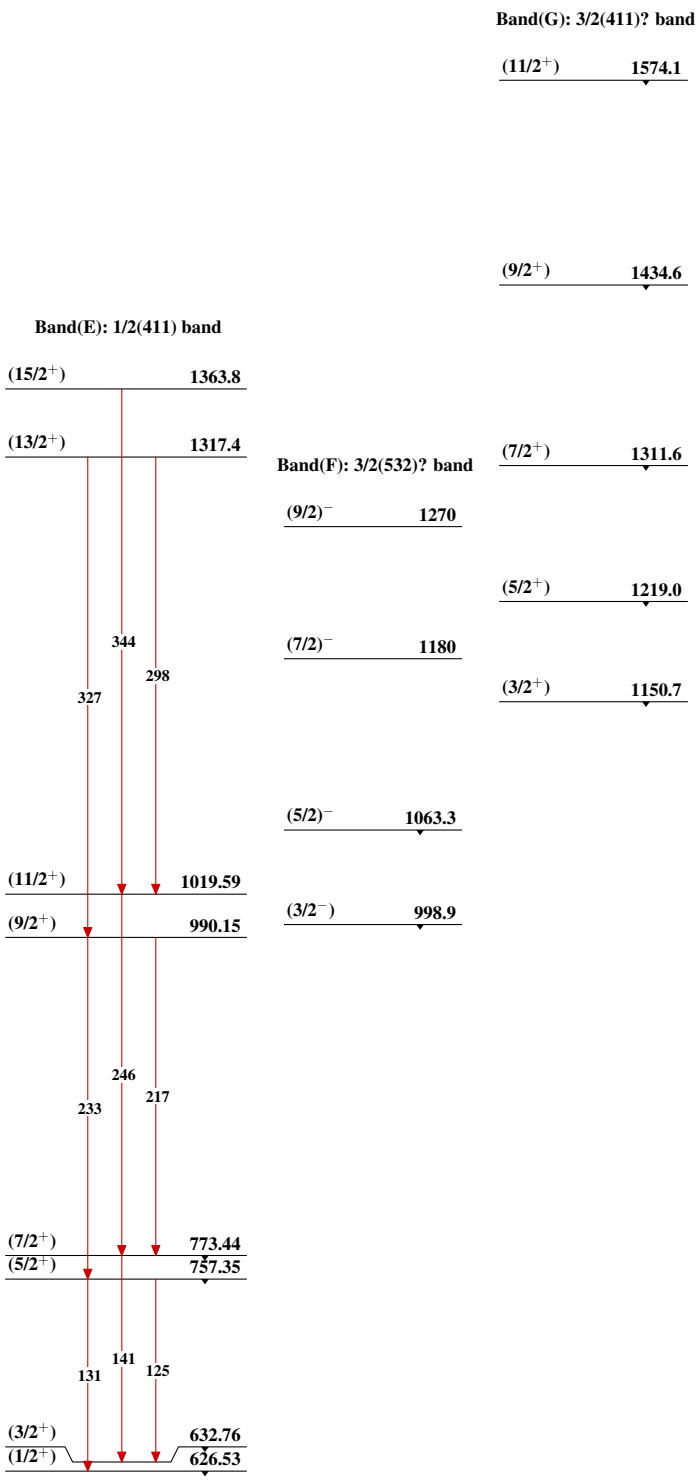
Adopted Levels, Gammas



Adopted Levels, Gammas (continued)



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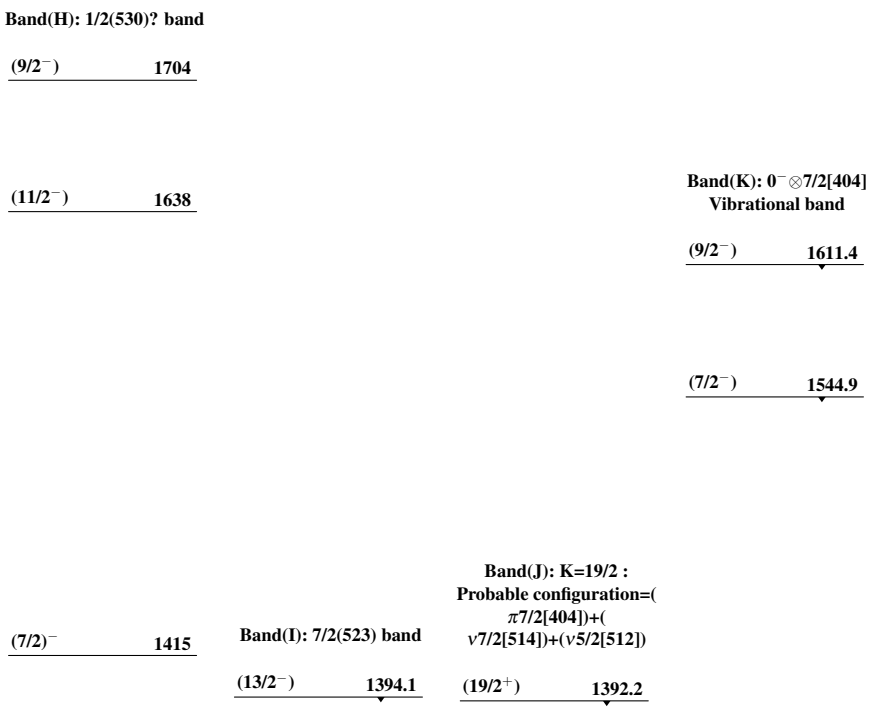
Adopted Levels, Gammas (continued)



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