Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 93,33 (2001)	11-May-2001

Q(β^-)=−5.63×10^3 *3*; S(n)=10270 *11*; S(p)=7051 *6*; Q(α)=−541 *5* 2012Wa38
Note: Current evaluation has used the following Q record −5666 70 *10273* 11 *7059* 8 −523 9 1995Au04.
Q(β^-): from $\beta\gamma$ coin (1998Ko66). Systematics value=5698 *205* (1995Au04).
^{130}Ba(n,n) E=0.0005-132 eV: 1985Ko23.
Isotope shift, hyperfine structure measurements: 1988Ya13, 1988Va11, 1987Va16, 1987Al25, 1985Si24, 1984We15, 1982Gr14, 1981Wa19, 1980Si14, 1977No04.
Additional information 1.

^{130}Ba Levels

Band assignments are from 1985Su03 and 2000St07.

Cross Reference (XREF) Flags

A	^{130}Cs β^- decay (29.21 min)	D	^{120}Sn(^{13}C,3nγ),^{116}Cd(^{18}O,4nγ)
B	^{130}Ba IT decay (9.4 ms)	E	^{130}Ba(α,α')
C	^{130}La ε decay (8.7 min)	F	Coulomb excitation

E(level)	J$^\pi$	T$_{1/2}$[†]	XREF	Comments
0.0[‡]	0$^+$	stable	ABCDEF	T$_{1/2}$(^{130}Ba 2β,neutrinoless decay) limit measured: 1998Be68. Δ<r^2>(^{130}Ba−^{138}Ba)=0.091 fm^2 *16* (1982Gr14), 0.086 fm^2 33 (1979Be25,1977No04).
357.38[‡] *8*	2$^+$	41.8 ps *12*	BCDEF	μ=+0.70 *6* (1989Ra17,1980Br01) B(E2)↑=1.163 *11* g=0.35 *3* (1980Br01) Q=−1.02 *16*; Q=−0.09 *16* (1989Bu07) B(E2)↑: from Coulomb excitation. μ: transient-field integral PAC (1980Br01). Q: reorientation method. −1.02 *16* (constructive), −0.09 *16* (destructive) (1989Bu07) assuming that γ from second 2$^+$ to first 2$^+$ is predominantly E2. Others: −0.33 *24* (1974Ne15), +0.37 *18* (destructive) (1973ToXW), −1.10 *34* (1967Si03). T$_{1/2}$: weighted average of 43.2 ps *5* (RDDS in (^{18}O,4nγ)) and 40.7 ps *4* (from B(E2)=1.163 *11* in Coul. ex.). J$^\pi$: ΔJ=2, E2 γ to 0$^+$.
888.89 *22*			D	
901.85[‡] *10*	4$^+$	3.83 ps *6*	BCD	J$^\pi$: ΔJ=2, E2 γ to 2$^+$.
908.02[b] *8*	2$^+$		BCD	J$^\pi$: ΔJ=2 γ to 0$^+$.
1179.5 *2*	0$^+$		C	J$^\pi$: $\gamma\gamma(\theta)$; γ to 2$^+$.
1361.06[b] *9*	3$^{(+)}$		BCD	J$^\pi$: ΔJ=1, D+Q γ's to 2$^+$ and 4$^+$.
1477.53[b] *9*	(4$^+$)		CD	J$^\pi$: ΔJ=2 γ to 2$^+$; γ to 4$^+$.
1544.4 *3*			D	
1557.55 *10*	2$^+$		C	J$^\pi$: $\gamma\gamma(\theta)$; γ's to 4$^+$ and 0$^+$.
1592.84[‡] *16*	6$^+$	0.98 ps *6*	BCD	J$^\pi$: ΔJ=2, E2 γ to 4$^+$.
1844.65 *11*	4$^+$		C	J$^\pi$: $\gamma\gamma(\theta)$; γ to 2$^+$.
1882.97 *10*	2$^+$		C	J$^\pi$: $\gamma\gamma(\theta)$; γ's to 0$^+$ and 4$^+$.
1918.6 *2*	3		C	J$^\pi$: $\gamma\gamma(\theta)$.
1948 *5*	(3$^-$)		E	J$^\pi$: systematic trend of 3$^-$ states in ^{132}Ba (at 2070), ^{134}Ba(at 2251), ^{136}Ba (at 2529) and ^{138}Ba (at 2879).

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Adopted Levels, Gammas (continued)

^{130}Ba Levels (continued)

E(level)	Jπ	$T_{1/2}$†	XREF	Comments
2012.57[b] *15*	5^+		B D	Jπ: E3 γ from 8^-, γ to 4^+.
2053.7 *3*	$(3,4^+)$		C	Jπ: γγ(θ); γ′s to 2^+ and 4^+.
2079.18 *9*	$3^{(+)}$		C	Jπ: γγ(θ); log *ft*=5.9 from $3^{(+)}$.
2101.16[b] *15*	(6^+)		D	Jπ: ΔJ=2 γ to 4^+.
2168.39[&] *17*	(5^-)		CD	Jπ: ΔJ=1 γ to 4^+; γ to 6^+.
2182.9 *3*			D	
2229.9 *4*			D	Jπ: γ to 6^+.
2248.17 *14*	$(3,4^+)$		C	Jπ: γγ(θ); γ′s to 2^+ and 4^+.
2269.2 *2*			C	Jπ: γ to 2^+.
2279.5 *2*			C	Jπ: γ to 4^+.
2317.99 *18*	$(3,4^+)$		C	Jπ: γγ(θ); γ′s to 2^+ and 4^+.
2346.87 *10*	$3^{(+)}$		C	Jπ: γγ(θ); log *ft*=5.9 from $3^{(+)}$.
2395.05[‡] *18*	8^+	0.49 ps *14*	B D	Jπ: ΔJ=2, E2 γ to 6^+.
2407.8 *4*			C	Jπ: γ to 4^+.
2433.8 *4*			C	Jπ: γ to 4^+.
2475.12 *18*	8^-	9.4 ms *4*	B D	%IT=100 Jπ: M2+E3 γ to 6^+, E1 γ to 8^+. $T_{1/2}$: weighted average of 9.54 ms *14* (1999DeZZ), 13.5 ms *10* (1969WaZX) and 8.8 ms *2* (1966Br14). Additional information 2.
2557.1 *3*			C	Jπ: γ to 2^+.
2568.17[&] *17*	(7^-)	4.16 ps *14*	D	Jπ: ΔJ=1, E1 γ to 6^+; ΔJ=2, E2 γ to (5^-).
2602.1 *3*			C	Jπ: γ to 2^+.
2645.76 *16*	$3^{(+)}$		C	Jπ: γγ(θ); log *ft*=6.0 from $3^{(+)}$.
2733.7 *4*	$(1,2^+)$		C	Jπ: γ to 0^+.
2784.0 *2*	$(3,4^+)$		C	Jπ: γγ(θ); γ to 2^+.
2799.79[b] *22*	(8^+)		D	Jπ: ΔJ=(2) γ to (6^+).
2891.2 *2*	(1 to 4)		C	Jπ: γ′s to 3^+ and 2^+.
2928.1 *4*			D	
2928.86[a] *23*	(8^-)		D	Jπ: ΔJ=1 γ to (7^-).
2935.4 *4*			C	Jπ: γ to 4^+.
3066.92[&] *21*	(9^-)	5.27 ps *14*	D	Jπ: ΔJ=2, E2 γ to (7^-); ΔJ=1 γ to 8^+.
3259.85[‡] *24*	10^+	0.55 ps *7*	D	Jπ: ΔJ=2, E2 γ to 8^+.
3265.26? *24*			C	Jπ: γ to 4^+.
3289.9 *4*			D	
3422.85[#] *24*	(10^+)		D	Jπ: ΔJ=(2) γ to 8^+; possible γ to 10^+.
3434.94[a] *24*	(10^-)		D	Jπ: ΔJ=2 γ to (8^-); ΔJ=1 γ to (9^-).
3602.52[b] *23*	(10^+)		D	Jπ: ΔJ=(2) γ to 8^+.
3658.9[&] *3*	(11^-)	2.10 ps *9*	D	Jπ: ΔJ=2, E2 γ to (9^-).
3660.02 *23*	$(2^+,3,4^+)$		C	Jπ: γ′s to 2^+ and 4^+.
3676.2 *4*			C	Jπ: γ to $(3^+,4^+)$.
3704.7 *4*	$(2^+,3,4^+)$		C	Jπ: γ′s to 2^+ and 4^+.
3712.0 *4*			C	Jπ: γ to 4^+.
3789.7[@] *3*	(10^+)		D	Jπ: ΔJ=(0) γ to 10^+.
3798.7 *3*			C	Jπ: γ to 3^+.
3962.6 *4*			D	Jπ: γ to 10^+.
3989.6[#] *3*	$(12)^+$	2.15 ps *21*	D	Jπ: ΔJ=2, E2 γ to 10^+.
4006.8 *4*			C	Jπ: γ to (3,4).
4077.9[a] *3*	(12^-)		D	Jπ: ΔJ=(2) γ to (10^-); γ to (11^-).
4222.3[‡] *4*	(12^+)		D	Jπ: ΔJ=2 γ to 10^+.
4256.1[@] *3*	(12^+)	1.52 ps *14*	D	Jπ: ΔJ=(2) γ to 10^+.

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Adopted Levels, Gammas (continued)

^{130}Ba Levels (continued)

E(level)	J^π	$T_{1/2}$[†]	XREF	Comments
4354.0[&] *4*	(13^-)		D	J^π: $\Delta J=(2)$ γ to (11^-).
4404.1 *4*			D	J^π: γ to 10^+.
4783.3[#] *4*	(14^+)	0.41 ps *4*	D	J^π: $\Delta J=(2)$ γ to $(12)^+$. $T_{1/2}$: effective half-life.
4879.3[a] *4*	(14^-)		D	J^π: $\Delta J=(2)$ γ to (12^-).
4885.3[@] *4*	(14^+)	3.4 ps *6*	D	J^π: $\Delta J=2$, E2 γ to (12^+). $T_{1/2}$: effective half-life.
5155.4[&] *4*	(15^-)		D	J^π: $\Delta J=(2)$ γ to (13^-).
5679.5[@] *4*	(16^+)		D	J^π: γ to (14^+).
5730.1[#] *4*	(16^+)		D	J^π: $\Delta J=(2)$ γ to (14^+).
5766.6[a] *4*	(16^-)		D	J^π: γ to (14^-).
6037.2[&] *5*	(17^-)		D	J^π: γ to (15^-).
6757.4[#] *5*	(18^+)		D	J^π: γ to (16^+).
6972.8[&] *6*			D	J^π: γ to (17^-).
8022.8[&] *6*			D	

[†] From recoil-distance Doppler shift in (^{18}O,4nγ) (2000St07).
[‡] Band(A): g.s. band.
[#] Band(B): first S (super) band.
[@] Band(C): second S (super) band.
[&] Band(D): π=−,α=1.
[a] Band(E): π=−, α=0.
[b] Band(F): quasi γ-band.

$\gamma(^{130}Ba)$

δ(Q/D) given in comments are from $\gamma\gamma(\theta)$ data.

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	α[#]	Comments
357.38	2^+	357.4 *1*	100	0.0	0^+	E2	0.0262	α(K)=0.02163; α(L)=0.00365; α(M)=0.00076; α(N+..)=0.00020 B(E2)(W.u.)=57.9 *17*
888.89		531.5 *2*	100	357.38	2^+			
901.85	4^+	544.5 *1*	100	357.38	2^+	E2		B(E2)(W.u.)=78.9 *13*
908.02	2^+	550.7 *1*	100 *6*	357.38	2^+			δ(Q/D)=−0.296 *7* or −40 *13*.
		908.0 *1*	66 *3*	0.0	0^+			
1179.5	0^+	271.4 *3*		908.02	2^+			
		822.0 *3*		357.38	2^+			
1361.06	$3^{(+)}$	453.2 *1*	49 *2*	908.02	2^+	D+Q		δ(Q/D)=+0.31 *2* or +13 *3*.
		459.4 *4*	9.3 *2*	901.85	4^+			δ(Q/D)=−0.20 *7* or −2.5 *5*.
		1003.6 *1*	100 *3*	357.38	2^+	D+Q		δ(Q/D)=−0.001 *9* or −4.6 *2*.
1477.53	(4^+)	569.4 *1*	100 *11*	908.02	2^+			
		575.5 *2*	71 *9*	901.85	4^+			δ(Q/D)=−0.43 *8* or +2.4 *5*.
		1120.2 *1*	66 *6*	357.38	2^+			
1544.4		655.5 *2*	100	888.89				
1557.55	2^+	196.2	6.9 *11*	1361.06	$3^{(+)}$			
		377.7 *3*		1179.5	0^+			
		649.6 *1*	53 *6*	908.02	2^+			δ(Q/D)=−0.01 *3* or +3.2 *4*.

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Adopted Levels, Gammas (continued)

γ(^{130}Ba) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	Comments
1557.55	2^+	655.6	7.2 *11*	901.85	4^+		
		1200.1 *1*	100 *8*	357.38	2^+		δ(Q/D)=−0.31 *2* or −23 *9*.
		1557.1 *3*	<8	0.0	0^+		
1592.84	6^+	691.1 *2*	100	901.85	4^+	E2	B(E2)(W.u.)=94 *6*
1844.65	4^+	367.1 *3*	42 *17*	1477.53	(4^+)		δ(Q/D)=−1.0 *8* or +213 *167*.
		483.7 *3*	83 *17*	1361.06	$3^{(+)}$		
		936.6 *2*	83 *17*	908.02	2^+		
		942.8 *1*	100 *8*	901.85	4^+		δ(Q/D)=+0.16 *13* or +0.8 *2*.
		1487.3 *2*	78 *5*	357.38	2^+		
1882.97	2^+	325.5 *3*		1557.55	2^+		
		521.8 *5*	≈10	1361.06	$3^{(+)}$		
		703.3 *3*	5.3 *8*	1179.5	0^+		
		974.9 *1*	48 *3*	908.02	2^+		δ(Q/D)=−0.25 *3* or +45 *6*.
		981.0 *3*		901.85	4^+		
		1525.7 *1*	100 *8*	357.38	2^+		δ(Q/D)=+0.029 *12* or +2.8 *2*.
		1882.5 *3*		0.0	0^+		
1918.6	3	1010.5 *3*		908.02	2^+		
		1016.7 *3*		901.85	4^+		δ(Q/D)=−0.4 *2* or −1.6 *7*.
		1561.2 *3*		357.38	2^+		δ(Q/D)=+0.04 *8* or −6 *3*.
2012.57	5^+	420.3 *5*	≈70	1592.84	6^+		
		651.5 *2*	100 *11*	1361.06	$3^{(+)}$		
		1110.4 *2*	94 *11*	901.85	4^+		
2053.7	$(3,4^+)$	496.3 *3*		1557.55	2^+		
		576.2 *5*	≈70	1477.53	(4^+)		
		692.8 *7*	91 *12*	1361.06	$3^{(+)}$		
		1151.8 *3*	100 *12*	901.85	4^+		
		1695.8 *3*	121 *19*	357.38	2^+		
2079.18	$3^{(+)}$	196.1 *3*		1882.97	2^+		
		234.5 *3*	3.0 *9*	1844.65	4^+		
		521.8 *5*	≈11	1557.55	2^+		δ(Q/D)=−0.8 *4*.
		601.5 *4*	9 *4*	1477.53	(4^+)		
		718.2 *1*	74 *4*	1361.06	$3^{(+)}$		
		1171.1 *1*	100 *4*	908.02	2^+		δ(Q/D)=+0.008 *25* or −4.8 *6*.
		1177.4 *1*	59 *2*	901.85	4^+		δ(Q/D)=−0.34 *7* or −1.8 *3*.
		1721.7 *1*	50 *4*	357.38	2^+		δ(Q/D)=+0.10 *2* or −8.4 *14*.
2101.16	(6^+)	623.8 *2*	100 *5*	1477.53	(4^+)		
		1199.3 *2*	43 *5*	901.85	4^+		
2168.39	(5^-)	575.5 *2*	32 *11*	1592.84	6^+		
		1266.6 *2*	100 *6*	901.85	4^+		
2182.9		590.1 *2*	100	1592.84	6^+		
2229.9		685.5 *2*	100	1544.4			
2248.17	$(3,4^+)$	1340.2 *3*		908.02	2^+		
		1346.3 *1*		901.85	4^+		
		1890.5 *3*		357.38	2^+		
2269.2		1361.1 *3*		908.02	2^+		
		1911.6 *3*		357.38	2^+		
2279.5		360.8 *3*		1918.6	3		
		1377.7 *3*		901.85	4^+		
2317.99	$(3,4^+)$	264.1 *3*		2053.7	$(3,4^+)$		
		473.4 *3*		1844.65	4^+		
		840.1 *3*	58 *10*	1477.53	(4^+)		
		957.0 *3*	100 *20*	1361.06	$3^{(+)}$		
		1410.7 *4*	100 *20*	908.02	2^+		
		1415.9[@]	22 *10*	901.85	4^+		

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Adopted Levels, Gammas (continued)

γ(^{130}Ba) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult. ‡	δ	α #	Comments
2346.87	3(+)	267.7 *1*	21 *7*	2079.18	3(+)				
		427.9 *3*		1918.6	3				
		464.2 *2*	36 *11*	1882.97	2+				
		502.2 *5*	8.9 *18*	1844.65	4+				
		789.2 *3*	15 *2*	1557.55	2+				
		869.3 *1*	71 *4*	1477.53	(4+)				δ(Q/D)=+0.47 *11* or +3.8 *14*.
		986.4 *10*	11 *4*	1361.06	3(+)				
		1438.8 *1*	100 *7*	908.02	2+				δ(Q/D)=+0.63 *7* or +3.0 *5*.
		1445.0 *2*	39 *4*	901.85	4+				δ(Q/D)=+1.1 *17*.
2395.05	8+	802.3 *2*	100	1592.84	6+	E2			B(E2)(W.u.)=9.E+1 *3*
2407.8		930.3 *3*		1477.53	(4+)				
2433.8		589.2 *3*		1844.65	4+				
2475.12	8−	80.3 *2*	10 *1*	2395.05	8+	E1		0.419	α(K)= 0.357; α(L)= 0.0495; α(M)=0.01009; α(N+..)=0.00259 B(E1)(W.u.)=4.0×10^{-12} *5*
		462.3 *2*	20 *2*	2012.57	5+	E3		0.0363	α(K)= 0.0283; α(L)=0.00630; α(M)=0.00135; α(N+..)=0.00036 B(E3)(W.u.)=0.0042 *6*
		882.3 *2*	100 *7*	1592.84	6+	M2+E3	1.1 *6*		B(M2)(W.u.)=8.E−8 *5*; B(E3)(W.u.)=0.00013 *7* δ: from α(K)exp in ^{130}Ba IT decay.
2557.1		1649.1 *3*	100	908.02	2+				
2568.17	(7−)	399.8 *2*	50 *2*	2168.39	(5−)	E2			B(E2)(W.u.)=110 *7*
		467.1 *2*	5 *3*	2101.16	(6+)	[E1]			B(E1)(W.u.)=2.0×10^{-5} *12*
		975.3 *2*	100 *2*	1592.84	6+	E1			B(E1)(W.u.)=4.41×10^{-5} *21*
2602.1		1694.1 *3*		908.02	2+				
2645.76	3(+)	298.7 *3*		2346.87	3(+)				
		327.9 *3*	≈70	2317.99	(3,4+)				
		376.2 *3*		2269.2					
		397.6 *6*	60 *30*	2248.17	(3,4+)				
		566.4 *3*		2079.18	3(+)				
		592.1 *4*	50 *10*	2053.7	(3,4+)				
		726.9 *3*		1918.6	3				
		801.2 *2*	100 *30*	1844.65	4+				δ(Q/D)=−0.2 *2* or −2.4 *13*.
		1088.0 *3*		1557.55	2+				
		1167.8 *3*		1477.53	(4+)				
		1744.0 *3*	60 *10*	901.85	4+				δ(Q/D)=+0.37 *7* or +4.2 *11*.
		2287.9 *3*	70 *10*	357.38	2+				δ(Q/D)=+0.07 *5* or −6.9 *23*.
2733.7	(1,2+)	1554.2 *3*		1179.5	0+				
2784.0	(3,4+)	437.2 *3*		2346.87	3(+)				
		1306.3 *3*		1477.53	(4+)				
		1882.0 *3*		901.85	4+				
		2426.9 *3*		357.38	2+				
2799.79	(8+)	698.7 *2*	100	2101.16	(6+)				
2891.2	(1 to 4)	1333.7 *3*		1557.55	2+				
		1530.2 *3*		1361.06	3(+)				
2928.1		745.2 *2*	100	2182.9					
2928.86	(8−)	360.7 *2*	100	2568.17	(7−)				
2935.4		1090.8 *3*		1844.65	4+				
3066.92	(9−)	498.8 *2*	100 *11*	2568.17	(7−)	E2			B(E2)(W.u.)=81 *13*
		671.8 *2*	9.7 *11*	2395.05	8+				
3259.85	10+	864.8 *2*	100	2395.05	8+	E2			B(E2)(W.u.)=54 *7*
3265.26?		1017.0 *3*	100 *30*	2248.17	(3,4+)				
		1787.8 *3*	71 *14*	1477.53	(4+)				

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Adopted Levels, Gammas (continued)

γ(^{130}Ba) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	Comments
3289.9		1107.0 *2*	100	2182.9			
3422.85	(10^+)	163.0 *2*	<5	3259.85	10^+		
		1027.8 *2*	100 *12*	2395.05	8^+		
3434.94	(10^-)	368.0 *2*	53 *7*	3066.92	(9^-)		
		506.1 *2*	100 *5*	2928.86	(8^-)		
3602.52	(10^+)	802.8 *2*	100 *30*	2799.79	(8^+)		
		1207.4 *2*	73 *7*	2395.05	8^+		
3658.9	(11^-)	592.0 *2*	100	3066.92	(9^-)	E2	B(E2)(W.u.)=95 *4*
3660.02	$(2^+,3,4^+)$	2182.5 *5*	25 *8*	1477.53	(4^+)		
		2752.1 *3*	100 *8*	908.02	2^+		
		2757.9 *4*	50 *8*	901.85	4^+		
3676.2		1622.6 *3*		2053.7	$(3,4^+)$		
3704.7	$(2^+,3,4^+)$	2796.7 *4*	100 *13*	908.02	2^+		
		2802.8 *12*	19 *6*	901.85	4^+		
3712.0		2810.1 *3*	100	901.85	4^+		
3789.7	(10^+)	529.8 *2*	100	3259.85	10^+		
3798.7		1529.5 *3*		2269.2			
		2437.8 *3*		1361.06	$3^{(+)}$		
3962.6		539.7 *2*	100	3422.85	(10^+)		
3989.6	$(12)^+$	566.7 *2*	26 *8*	3422.85	(10^+)	[E2]	B(E2)(W.u.)=24 *8*
		729.7 *2*	100 *5*	3259.85	10^+	E2	B(E2)(W.u.)=26 *4*
4006.8		1222.8 *3*		2784.0	$(3,4^+)$		
4077.9	(12^-)	419.0 *2*	26 *9*	3658.9	(11^-)		
		643.0 *2*	100 *4*	3434.94	(10^-)		
4222.3	(12^+)	962.4 *2*	100	3259.85	10^+	Q	
4256.1	(12^+)	466.4 *2*	45 *20*	3789.7	(10^+)	[E2]	B(E2)(W.u.)=1.3×10^2 *7*
		996.2 *2*	100 *5*	3259.85	10^+	[E2]	B(E2)(W.u.)=6.7 *12*
4354.0	(13^-)	695.1 *2*	100	3658.9	(11^-)	(Q)	
4404.1		981.2 *2*	100	3422.85	(10^+)		
4783.3	(14^+)	793.7 *2*	100	3989.6	$(12)^+$	[E2]	B(E2)(W.u.)=112 *11*
4879.3	(14^-)	801.4 *2*	100	4077.9	(12^-)		
4885.3	(14^+)	629.2 *2*	100	4256.1	(12^+)	E2	B(E2)(W.u.)=43 *8*
5155.4	(15^-)	801.4 *2*	100	4354.0	(13^-)	(Q)	
5679.5	(16^+)	794.2 *2*	100	4885.3	(14^+)		
5730.1	(16^+)	946.8 *2*	100	4783.3	(14^+)		
5766.6	(16^-)	887.3 *2*	100	4879.3	(14^-)		
6037.2	(17^-)	881.8 *2*	100	5155.4	(15^-)		
6757.4	(18^+)	1027.3 *2*	100	5730.1	(16^+)		
6972.8		936.0 *2*		6037.2	(17^-)		
8022.8		1050.0 *2*		6972.8			

[†] For levels populated in ^{130}La ε decay, ^{130}Ba IT decay and in ^{120}Sn(^{13}C,3nγ), the values are generally taken from ^{130}La ε decay.

[‡] From ce and γ(θ) data in ^{120}Sn(^{13}C,3nγ),^{116}Cd(^{18}O,4nγ), except for the 8^- isomer at 2475, for which the assignments are from ce data in ^{130}Ba IT decay.

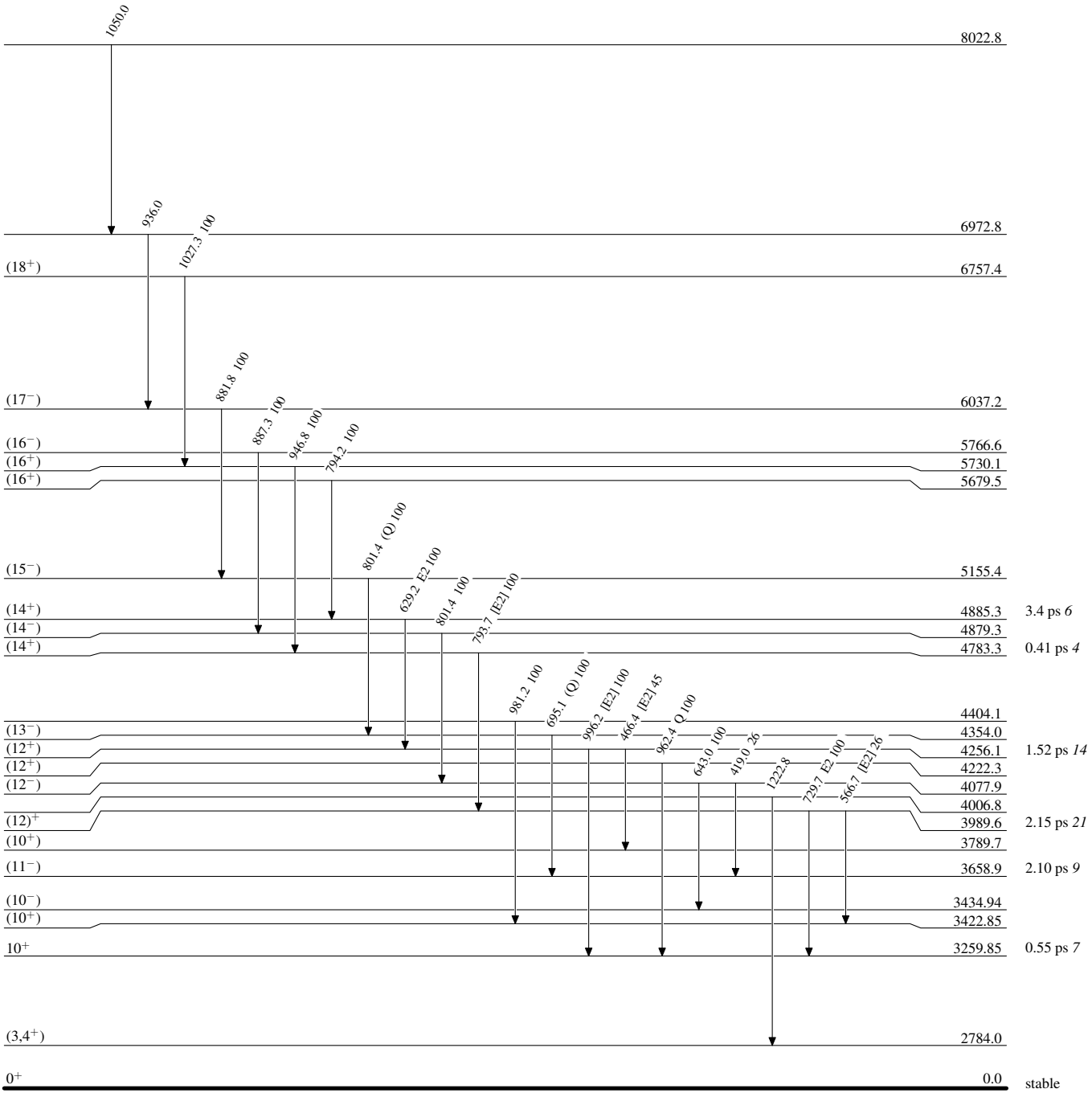
[#] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

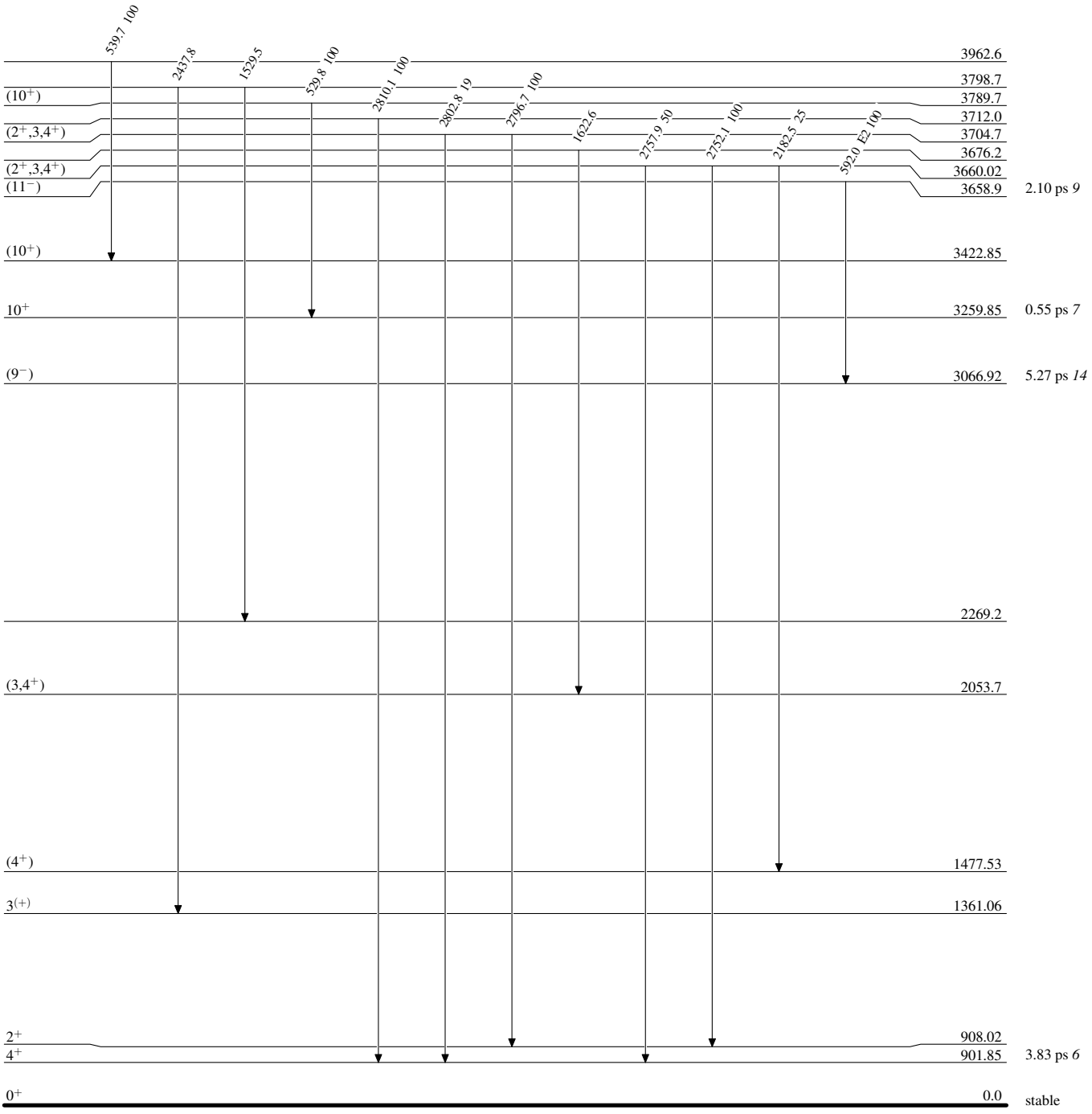


$^{130}_{56}Ba_{74}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

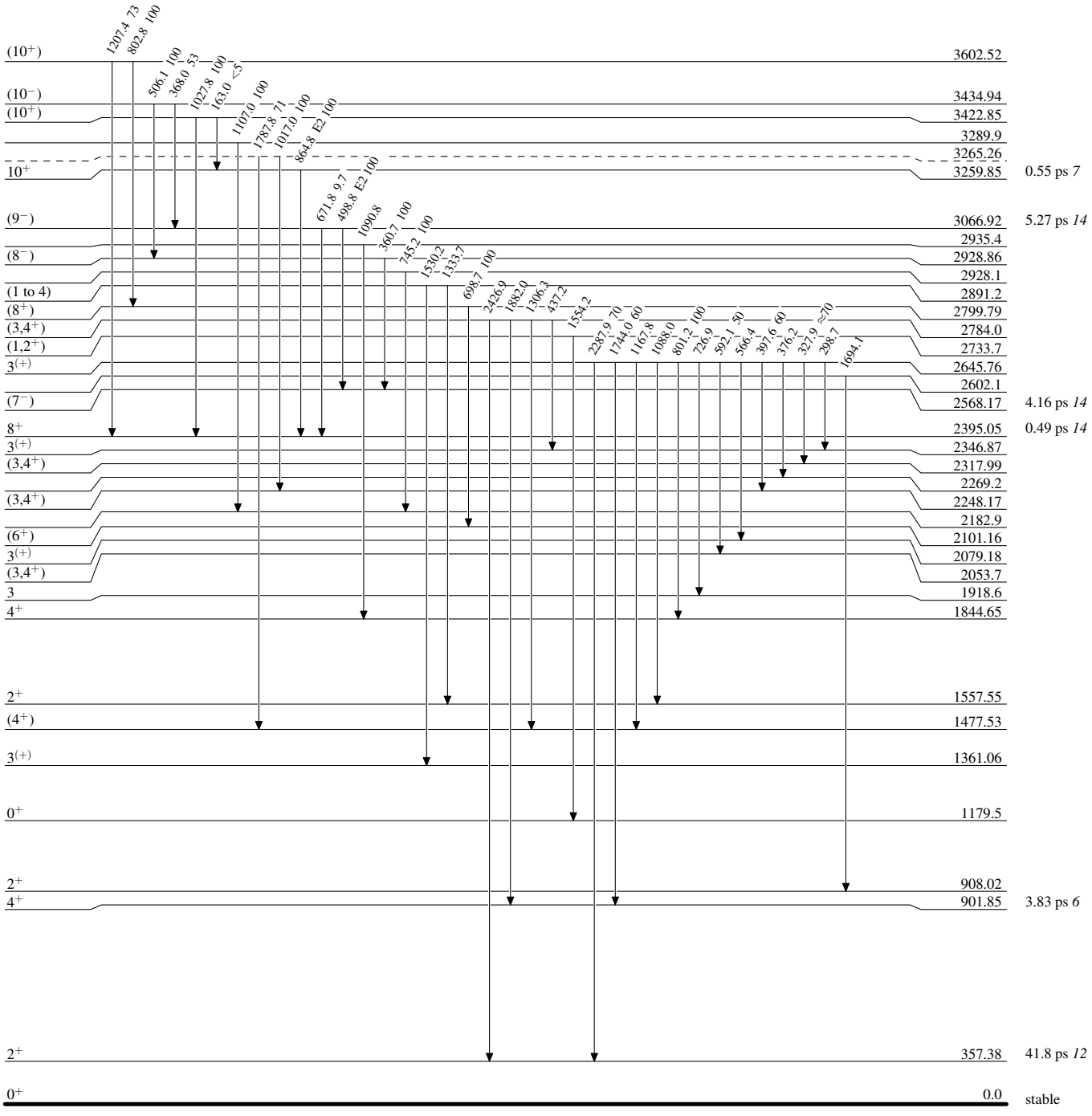


$^{130}_{56}Ba_{74}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{130}_{56}Ba_{74}$

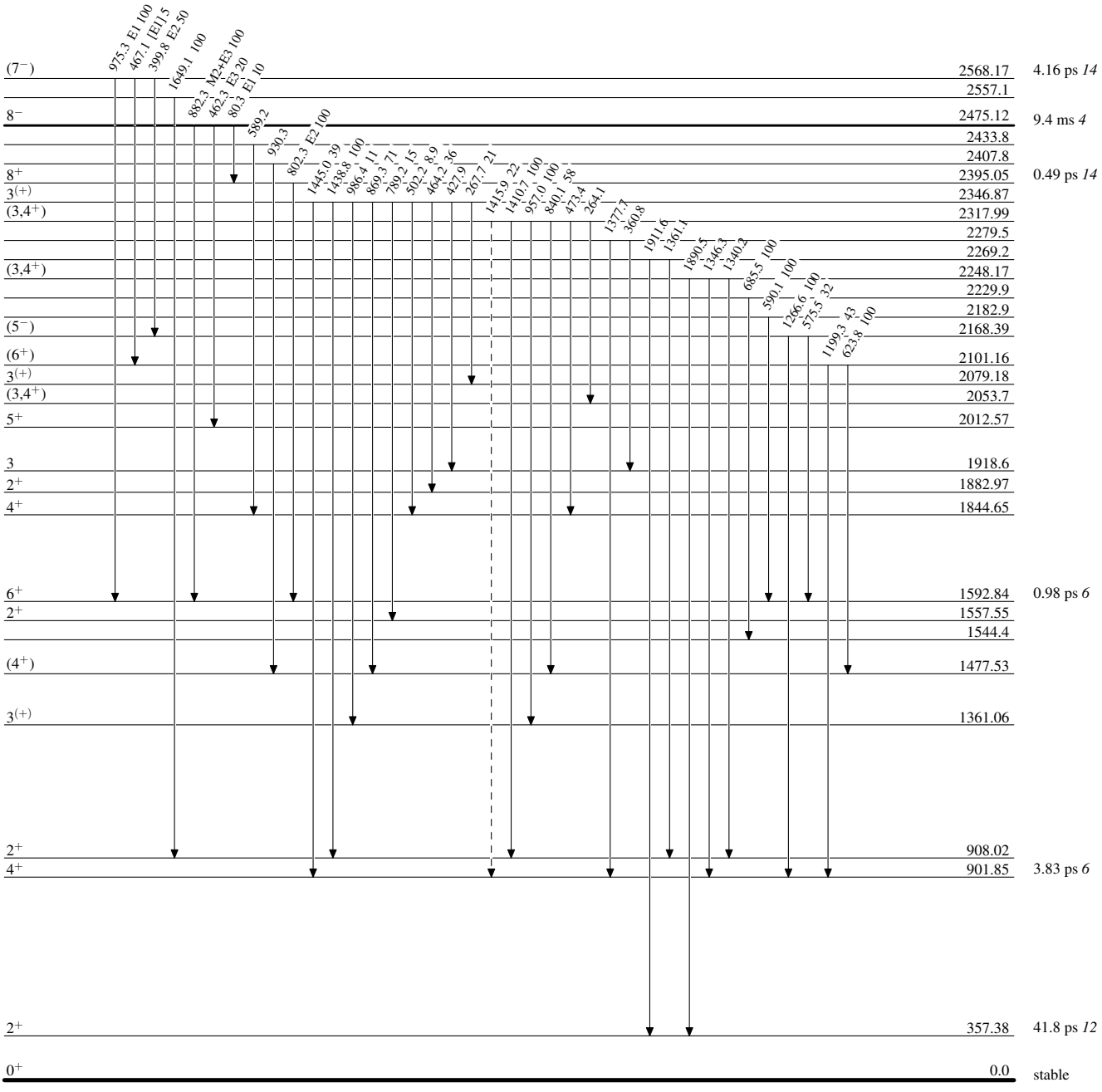
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

– – – – – – ► γ Decay (Uncertain)

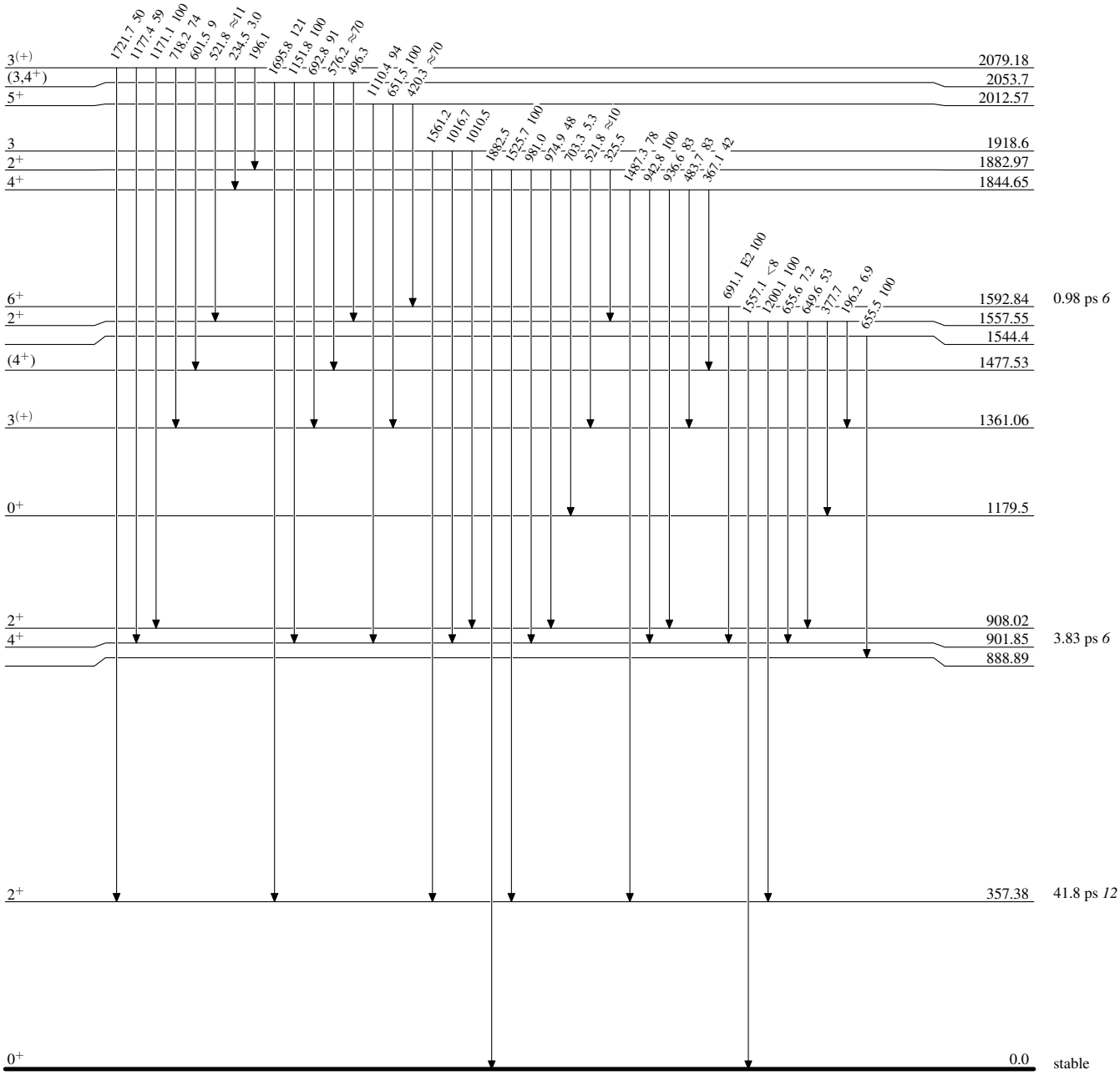


$^{130}_{56}Ba_{74}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

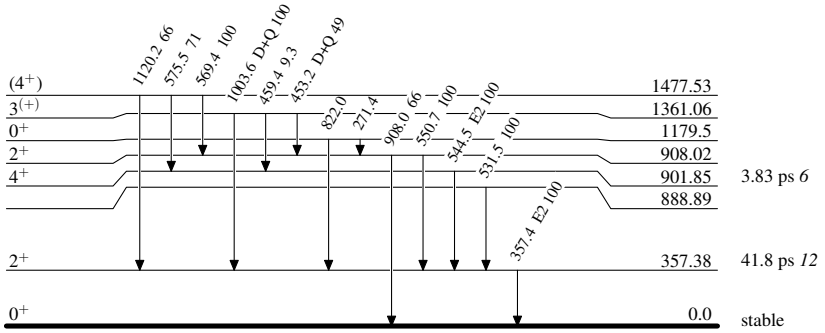


$^{130}_{56}Ba_{74}$

Adopted Levels, Gammas

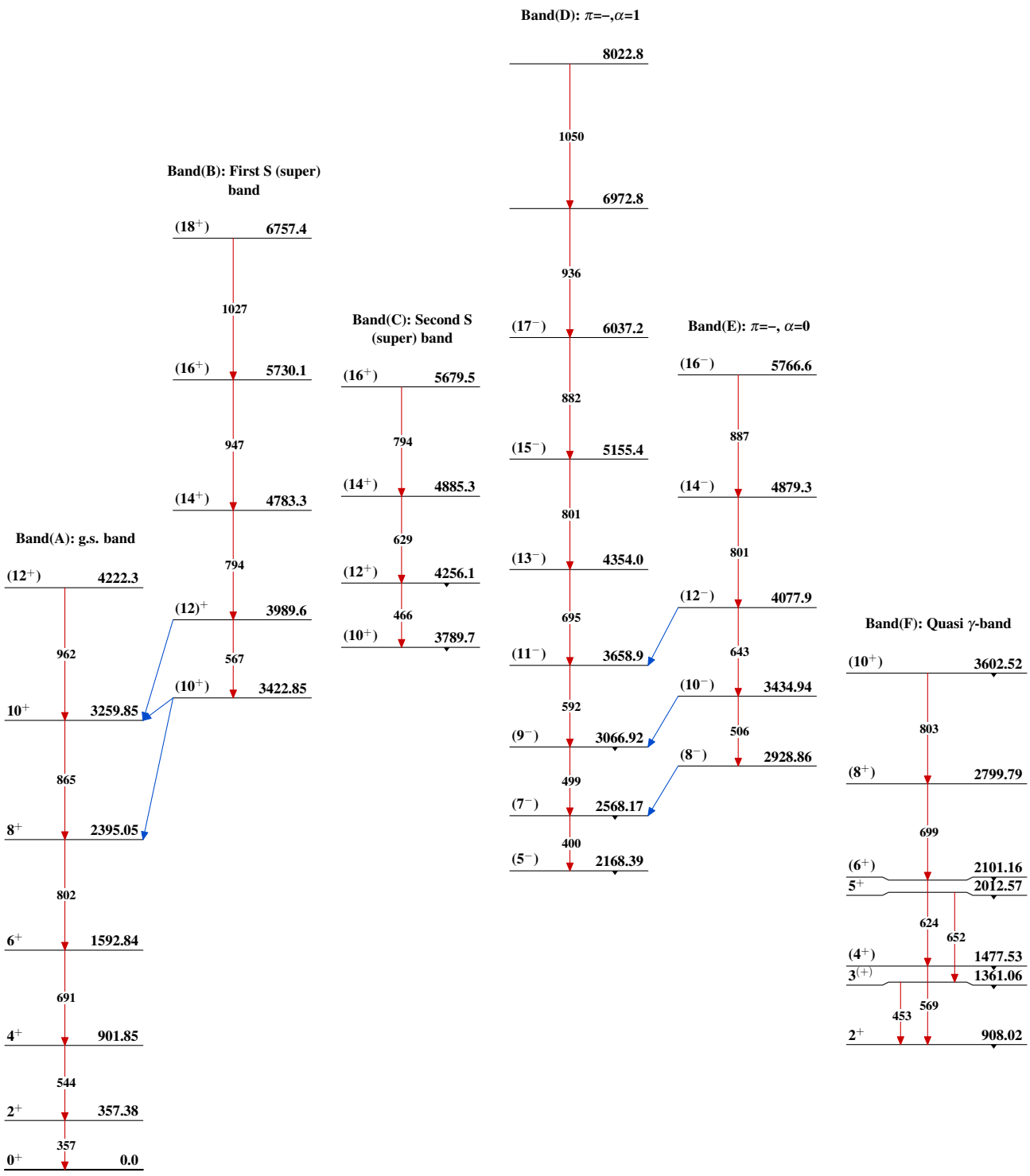
Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{130}_{56}Ba_{74}$

Adopted Levels, Gammas



$^{130}_{56}Ba_{74}$