Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 108,2173 (2007)	1-Oct-2006

Q(β^-)=−580.5 *17*; S(n)=6905.63 *7*; S(p)=8671.5 *19*; Q(α)=−2502.8 *25* 2012Wa38
Note: Current evaluation has used the following Q record.
Q(β^-)=−621 *13*; S(n)=6905.61 *8*; S(p)=8671.5 *19*; 2003Au03

Others:
Isomeric yield: ^{138}Ba(γ,n) (1995Ma78,1996Be32), ^{139}La(n,t) (1994Hu19), ^{138}Ba(n,2n) (1994Gr35);
Isotope shift: 1993Vi10.
2006AnZZ: Measured relative excitation of isomer and gs via deexcitation of giant dipole resonance excited in ^{138}Ba(γ,n). Other: 2005AnZX.

^{137}Ba Levels

Cross Reference (XREF) Flags

A	^{137}Cs β^- decay	E	^{136}Ba(n,γ) E=thermal	I	Coulomb excitation
B	^{137}Ba IT decay (2.552 min)	F	^{136}Ba(d,p)	J	^{138}Ba(p,d)
C	^{137}La ε decay	G	^{137}Ba(γ,γ')		
D	^{136}Xe(α,3nγ)	H	^{137}Ba(n,n'γ)		

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$	XREF	Comments
0.0	3/2$^+$	stable	ABCDEFGHIJ	μ=+0.935814 *5* (2000Tr07) μ=+0.937365 *20* (1972Ol01,1989Ra17) Q=+0.245 *4* (1988We07,1989Ra17) J$^\pi$: atomic beam (1976Fu06), L=2 in (d,p), (p,d). Configuration=(ν $2d_{3/2}$)$^{-1}$. μ: Others: +0.937365 *20* (1972Ol01,1989Ra17), +0.937344 *20* (1978Lu07,1989Ra17). 2000Tr07 had mistakenly assigned the vlaue to ^{135}Ba. Q: Others: +0.228 *24* (1976Ma28), +0.25 *1* (1986Si03), +0.34 *4* (1979Gu09), +0.28 *3* (1976Ma28). Δ<r^2>(^{137}Ba,^{138}Ba)=−0.066 *5* (1999GaZX).
283.54[#] *4*	1/2$^+$		A EF HIJ	B(E2)=0.025 *2* from Coul. ex. J$^\pi$: L=0 in (p,d) and (d,p) Configuration=(ν $3s_{1/2}$)$^{-1}$.
661.659 *3*	11/2$^-$	2.552 min *1*	AB DEFGH J	%IT=100 μ=−0.992 *26* (1983Mu12,1989Ra17) Q=+0.78 *9* (1983Mu12,1989Ra17) E(level): from ^{137}Cs β^- decay. $T_{1/2}$: weighted average of 2.5545 min *21* (1973LeZJ), 2.5577 min *32* (1967Mi11), 2.5513 min *7* (1966Ma28), 2.554 min *2* (1965Me03). J$^\pi$: L=5 in (p,d); 661γ is M4; $h_{11/2}$ intruder state. Q: Adopted value disagrees with Q≈−0.05 (1976Fu06). %two-photon/%single-photon<2.2×10^{-6} (1992Ba45).
907? *10*			F	
1044? *10*			F	
1251.82 *8*	7/2$^+$	0.354 ps *24*	DE HI	J$^\pi$: from $\gamma(\theta)$ in Coul ex, E2 γ to 3/2$^+$ g.s.. $T_{1/2}$: from B(E2) in Coul ex.
1293.90 *8*	5/2$^+$		EF HIJ	J$^\pi$: L=2 in (p,d); M1+E2 to 3/2$^+$ g.s.; γ from 7/2$^-$.
1463.8 *6*	3/2$^+$		EFGH J	J$^\pi$: L(p,d)=2, D to 1/2$^+$.
1481.8 *4*	(3/2$^+$,5/2$^+$)		E GH	J$^\pi$: feeds 1/2$^+$ and 7/2$^+$ levels.
1797.67 *17*	7/2$^-$		EF H	J$^\pi$: L(d,p)=3; E2 γ to 11/2$^-$.
1837.6 *7*	1/2$^+$		EFGH J	J$^\pi$: L=0 in (d,p), (p,d).

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Adopted Levels, Gammas (continued)

^{137}Ba Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$	XREF	Comments
1857? *10*	(1/2$^+$)		F	J$^{\pi}$: L=(0) in (d,p).
1892.0 *10*			G	
1899.4[#] *4*	3/2$^+$		EfGH j	J$^{\pi}$: L=2 level in (p,d) is probably 1899+1908. Both are fed by primary transitions from 1/2$^+$ capture state. The primary transition branching to both levels is not commensurate with E2 (1995Bo03).
1907.52[#] *20*	3/2$^+$		EfGH j	J$^{\pi}$: see 1899 level.
2041.4 *6*	(5/2)$^+$		EFGH J	J$^{\pi}$: L(p,d)=2; no primary transition from 1/2$^+$ capture state (1995Bo03).
2047.4 *3*			D	J$^{\pi}$: γ only to 11/2$^-$, γ from (13/2$^-$).
2117.0 *10*			G	
2182.22[#] *5*	3/2$^-$		EF	J$^{\pi}$: L(d,p)=1; circular polarization of γ in (n,γ).
2228.9 *4*	7/2$^+$		H J	J$^{\pi}$: L=4 in (p,d), feeds 3/2$^+$.
2229.5 *4*	(13/2$^-$)		D H	J$^{\pi}$: stretched D to 11/2$^-$, no γ to 7/2$^+$ or 7/2$^-$.
2271.0 *4*	(3/2$^+$,5/2)		EF H	J$^{\pi}$: feeds 3/2$^+$ and 7/2$^+$. Absence in (p,d) should exclude Configuration=(ν g$_{7/2}$)$^{-1}$ (1995Bo03).
2311.0 *10*			G	
2340 *20*	7/2$^+$,9/2$^+$		J	J$^{\pi}$: L=4 in (p,d).
2344.0 *10*			G	
2349.1 *5*	(17/2$^-$)	0.59 μs *10*	D	J$^{\pi}$: from 120$\gamma(\theta)$, E2 to (13/2$^-$). $T_{1/2}$: from (α,3nγ).
2355.6[#] *4*	1/2,3/2		E	J$^{\pi}$: feeds 1/2$^+$, 3/2$^+$ levels, fed by primary transition.
2373.0 *10*			G	
2407.8 *5*			D	
2427.0 *10*			G	
2438.8? *3*			D	J$^{\pi}$: γ only to 11/2$^-$.
2529.6 *6*	7/2$^+$		H J	J$^{\pi}$: L=4 in (p,d), decays to 3/2$^+$.
2571.0 *10*			G	
2590.1 *4*			D	J$^{\pi}$: γ to (13/2$^-$).
2623.8 *6*	(19/2)	≤30 ns	D	J$^{\pi}$: from 274$\gamma(\theta)$. $T_{1/2}$: from 1973Ke07.
2653.0 *10*			G	
2662.72[#] *5*	1/2$^-$		EF J	J$^{\pi}$: L=1 in (d,p), circular polarization of γ in (n,γ).
2709.0 *10*			FG	
2750 *30*			J	
2810? *20*	(5/2$^-$,7/2$^-$)		F	J$^{\pi}$: L=(3) in (d,p).
2848 *20*	5/2$^-$,7/2$^-$		F	J$^{\pi}$: L=3 in (d,p).
2873.8 *11*	(5/2)$^-$		EF H j	J$^{\pi}$: L=3 in (d,p). 1995Bo03 suggest 5/2 on the basis of Iγ(n,n$'\gamma$)/Iγ(n,γ) for 1076γ.
2905.0 *10*	5/2$^-$,7/2$^-$		FG j	J$^{\pi}$: L=3 in (d,p).
2954.0 *10*			G	
2964.9[#] *4*	1/2,3/2		E	
2990 *30*	7/2$^+$,9/2$^+$		J	J$^{\pi}$: L(p,d)=4.
3008 *20*			F	
3037.0? *10*			FG	
3074.0 *10*			G	
3086.1[#] *4*	1/2,3/2		E	
3094.0 *10*			G	
3127.42[#] *12*	1/2,3/2		E J	
3140.0 *10*			G	
3141 *20*	(9/2)$^-$		F	J$^{\pi}$: from L, S in (d,p).
3179.4 *7*			D	
3221.0[#] *10*	1/2,3/2		E J	
3228 *20*	5/2$^-$,7/2$^-$		F	J$^{\pi}$: L(d,p)=3.
3244.0 *7*			D	

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Adopted Levels, Gammas (continued)

^{137}Ba Levels (continued)

E(level)[†]	Jπ[‡]	XREF	Comments
3251.0? *10*		FG	
3279.0? *10*		G	
3316.53[#] *15*	1/2⁻,3/2⁻	EF	Jπ: L(d,p)=1.
3332.0? *10*	(5/2)⁻	FG	Jπ: L(d,p)=3, S.
3383.0? *10*		G	
3402.54[#] *11*	3/2⁻	EF	Jπ: L(d,p)=1; decays to 5/2⁺.
3420? *20*		J	
3453.0? *10*		G	
3473.0? *10*		G	
3496? *20*	5/2⁻,7/2⁻	F	Jπ: L(d,p)=3.
3525.0? *10*		G	
3550	7/2⁺,9/2⁺	J	Jπ: L(p,d)=4.
3563.0? *10*		G	
3591? *20*	5/2⁻,7/2⁻	F	Jπ: L(d,p)=3.
3606.1?[#] *10*		EF	
3640.1? *10*	5/2⁻,7/2⁻	FG	Jπ: L(d,p)=3.
3680.80[#] *17*	1/2⁻,3/2⁻	EF	Jπ: L(d,p)=1.
3703.1? *10*	5/2⁻,7/2⁻	FG	Jπ: L(d,p)=3.
3720.9?[#] *4*	1/2,3/2	EF	
3761.1? *10*		G	
3778.1? *10*		FG	
3798.89[#] *24*	(1/2⁻,3/2⁻)	EFG	XREF: F(3805). Jπ: L(d,p)=(1).
3822.1? *10*		G	
3827? *20*	5/2⁻,7/2⁻	F	Jπ: L(d,p)=3.
3846.1? *10*		G	
3850.3[#] *7*	1/2,3/2	E G	
3857.1[#] *10*	1/2,3/2	E G	
3894.1? *10*		G	
3940.1? *10*		G	
3963.1[#] *10*	1/2,3/2	E	
3977.1[#] *10*	1/2,3/2	E	
3981.1? *10*		G	
4149.97[#] *18*	1/2⁺,3/2	E	Jπ: decays to 5/2⁺.
4206.1[#] *10*	1/2,3/2	E	
4216.10[#] *15*	1/2,3/2	E	
4550.7[#] *7*	1/2,3/2	E	
4594.9[#] *7*	1/2,3/2	E	
4764.4[#] *5*	1/2,3/2	E	

[†] E(level) for levels seen in (n,γ) or (n,n′γ) are from 1995Bo03.

[‡] Levels fed in primary transition from 1/2⁺ capture state in (n,γ) are assumed to be 1/2,3/2, unless stated otherwise. J≤9/2 are mostly from L and S in (d,p) and (p,d); J≥13/2 are from γ(θ) in (α,3nγ), unless given otherwise. J populated via (γ,γ′)≤5/2 or 7/2⁺.

[#] Level fed in primary cascade to g.s. or the first-excited state.

Adopted Levels, Gammas (continued)

γ(^{137}Ba)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.	α[‡]	Comments
283.54	1/2$^+$	283.53 *4*	100	0.0	3/2$^+$			E_γ: from 1997WaZZ in (n,n′γ). 1997WaZZ in both (n,n′γ) and ^{137}Cs β^- decay and 1996Bi23 in ^{137}Cs β^- decay confirm this energy and did not find any evidence for a possible doublet at previously reported 279.96γ (1973Ke07,1973Ke22).
661.659	11/2$^-$	661.657 *3*	100	0.0	3/2$^+$	M4	0.1124	B(M4)(W.u.)=2.719 *9*; α(K)exp=0.0904 *5* (1992Ne04) α(K)=0.0915 *13*; α(L)=0.01648 *23*; α(M)=0.00352 *5*; α(N+..)=0.000879 *13* α(N)=0.000759 *11*; α(O)=0.0001134 *16*; α(P)=7.21×10^{-6} *11* E_γ: from 1995HeZZ.
1251.82	7/2$^+$	1251.81 *8*	100	0.0	3/2$^+$	E2	1.14×10^{-3}	B(E2)(W.u.)=12.5 *11* α(K)=0.000974 *14*; α(L)=0.0001245 *18*; α(M)=2.56×10^{-5} *4*; α(N+..)=1.98×10^{-5} *3* α(N)=5.51×10^{-6} *8*; α(O)=8.41×10^{-7} *12*; α(P)=6.06×10^{-8} *9*; α(IPF)=1.341×10^{-5} *19*
1293.90	5/2$^+$	1293.90 *8*	100	0.0	3/2$^+$	M1+E2	0.00124 *17*	α(K)=0.00106 *15*; α(L)=0.000133 *17*; α(M)=2.7×10^{-5} *4*; α(N+..)=2.70×10^{-5} *7* α(N)=5.9×10^{-6} *8*; α(O)=9.0×10^{-7} *12*; α(P)=6.7×10^{-8} *10*; α(IPF)=2.02×10^{-5} *5*
1463.8	3/2$^+$	1180.6	5	283.54	1/2$^+$	D		
		1463.91	100	0.0	3/2$^+$			
1481.8	(3/2$^+$,5/2$^+$)	230.0[#] *4*		1251.82	7/2$^+$			
		1198.33	67	283.54	1/2$^+$			
		1481.66	100	0.0	3/2$^+$			
1797.67	7/2$^-$	504.0	1.0	1293.90	5/2$^+$			
		1136.69	100	661.659	11/2$^-$	E2	1.38×10^{-3}	α(K)=0.001187 *17*; α(L)=0.0001532 *22*; α(M)=3.15×10^{-5} *5*; α(N+..)=9.25×10^{-6} *13* α(N)=6.77×10^{-6} *10*; α(O)=1.033×10^{-6} *15*; α(P)=7.37×10^{-8} *11*; α(IPF)=1.370×10^{-6} *20*
1837.6	1/2$^+$	1553.64	100	283.54	1/2$^+$			
		1838.0	45	0.0	3/2$^+$			
1892.0		1892		0.0	3/2$^+$			
1899.4	3/2$^+$	1615.8	85	283.54	1/2$^+$			
		1899.0	100	0.0	3/2$^+$	D		
1907.52	3/2$^+$	1623.32	100 *11*	283.54	1/2$^+$			
		1908.0	89 *24*	0.0	3/2$^+$			
2041.4	(5/2)$^+$	578.0	12	1463.8	3/2$^+$			
		747.43[@]	40[@]	1293.90	5/2$^+$			
		2041.1	100	0.0	3/2$^+$			
2047.4		1385.7 *3*	100	661.659	11/2$^-$			
2117.0		2117	100	0.0	3/2$^+$			

$^{137}_{56}Ba_{81}$-4

Adopted Levels, Gammas (continued)

γ(^{137}Ba) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.	α‡	Comments
2182.22	3/2⁻	384.59 *17*	0.82 *14*	1797.67	7/2⁻			
		1898.70 *5*	100.0 *9*	283.54	1/2⁺			
		2182.23 *9*	2.5 *2*	0.0	3/2⁺			
2228.9	7/2⁺	747.5@	89@	1481.8	(3/2⁺,5/2⁺)			
		766.1&	100	1463.8	3/2⁺			
		934.9	33	1293.90	5/2⁺			
		976.8		1251.82	7/2⁺			
2229.5	(13/2⁻)	182.0 *3*	1.5 *5*	2047.4				
		1568.3	100 *11*	661.659	11/2⁻	D		
2271.0	(3/2⁺,5/2)	371.3	17.5	1899.4	3/2⁺			
		976.8	100	1293.90	5/2⁺			
		1019.0	37.5	1251.82	7/2⁺			
		2271.4	95	0.0	3/2⁺			
2311.0		2311	100	0.0	3/2⁺			
2344.0		2344	100	0.0	3/2⁺			
2349.1	(17/2⁻)	120.2 *3*	100	2229.5	(13/2⁻)	E2	1.004 *17*	α(K)=0.687 *11*; α(L)=0.250 *5*; α(M)=0.0545 *10*; α(N+..)=0.01289 *23* α(N)=0.01134 *21*; α(O)=0.00152 *3*; α(P)=3.28×10^{-5} *6* B(E2)(W.u.)=0.45 *8*. Mult from RUL.
2355.6	1/2,3/2	2072.6 *6*	100 *16*	283.54	1/2⁺			
		2355.4 *4*	52 *16*	0.0	3/2⁺			
2373.0		2373	100	0.0	3/2⁺			
2407.8		178.9 *3*	100	2229.5	(13/2⁻)			
2427.0		2427	100	0.0	3/2⁺			
2438.8?		1777.1 *3*	100	661.659	11/2⁻			
2529.6	7/2⁺	622.2	51	1907.52	3/2⁺			
		731.1	71	1797.67	7/2⁻			
		1067.8&	33	1463.8	3/2⁺			
		1236.4	100	1293.90	5/2⁺			
		1868.8&		661.659	11/2⁻			I_γ: probably multiply placed as only a small intensity can be assigned to this placement, as the transition has to be an M2.
2571.0		2571	100	0.0	3/2⁺			
2590.1		151.3 *3*	100 *10*	2438.8?				
		361.1 *3*	80 *8*	2229.5	(13/2⁻)			
2623.8	(19/2)	274.7 *3*	100	2349.1	(17/2⁻)	D		If M1, B(M1)(W.u.)>3.3×10^{-5}; if E1, B(E1)(W.u.)>4.0×10^{-7}.
2653.0		2653	100	0.0	3/2⁺			
2662.72	1/2⁻	480.61 *7*	87 *3*	2182.22	3/2⁻			
		755.24 *21*	5.3 *5*	1907.52	3/2⁺			
		763.4 *4*	1.4 *5*	1899.4	3/2⁺			
		2379.07 *7*	70 *3*	283.54	1/2⁺			
		2662.68 *7*	100 *3*	0.0	3/2⁺			
2709.0		2709		0.0	3/2⁺			

$^{137}_{56}Ba_{81}$-5

Adopted Levels, Gammas (continued)

γ(^{137}Ba) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π
2873.8	(5/2)$^-$	1076.1		1797.67	7/2$^-$
		1623.1&		1251.82	7/2$^+$
2905.0	5/2$^-$,7/2$^-$	2905		0.0	3/2$^+$
2954.0		2954	100	0.0	3/2$^+$
2964.9	1/2,3/2	1057.4@ *12*	10@ *4*	1907.52	3/2$^+$
		2964.9 *4*	100 *15*	0.0	3/2$^+$
3037.0?		3037		0.0	3/2$^+$
3074.0		3074		0.0	3/2$^+$
3086.1	1/2,3/2	2800.9 *6*	100	283.54	1/2$^+$
		3086.9 *7*	52	0.0	3/2$^+$
3094.0		3094		0.0	3/2$^+$
3127.42	1/2,3/2	945	12	2182.22	3/2$^-$
		2843.80 *19*	56 *7*	283.54	1/2$^+$
		3127.41 *14*	100 *7*	0.0	3/2$^+$
3140.0		3140		0.0	3/2$^+$
3179.4		555.6 *3*	100	2623.8	(19/2)
3221.0	1/2,3/2	3221	100	0.0	3/2$^+$
3244.0		620.2 *3*	100	2623.8	(19/2)
3251.0?		3251		0.0	3/2$^+$
3279.0?		3279		0.0	3/2$^+$
3316.53	1/2$^-$,3/2$^-$	230.0# *4*	24 *4*	3086.1	1/2,3/2
		1134	8	2182.22	3/2$^-$
		1416	9	1899.4	3/2$^+$
		3033.06 *15*	100 *5*	283.54	1/2$^+$
		3316	5	0.0	3/2$^+$
3332.0?	(5/2)$^-$	3332		0.0	3/2$^+$
3383.0?		3383		0.0	3/2$^+$
3402.54	3/2$^-$	1220	5.5	2182.22	3/2$^-$
		2107.6 *9*	11 *3*	1293.90	5/2$^+$
		3118.95 *11*	100 *6*	283.54	1/2$^+$
		3402	5.5	0.0	3/2$^+$
3453.0?		3453		0.0	3/2$^+$
3473.0?		3473		0.0	3/2$^+$
3525.0?		3525		0.0	3/2$^+$
3563.0?		3563		0.0	3/2$^+$
3606.1?		3606	100	0.0	3/2$^+$
3640.1?	5/2$^-$,7/2$^-$	3640		0.0	3/2$^+$
3680.80	1/2$^-$,3/2$^-$	1781&	13	1899.4	3/2$^+$
		2198.3 *12*	18 *7*	1481.8	(3/2$^+$,5/2$^+$)
		3397.25 *17*	100 *6*	283.54	1/2$^+$
		3680	12	0.0	3/2$^+$
3703.1?	5/2$^-$,7/2$^-$	3703		0.0	3/2$^+$
3720.9?	1/2,3/2	1057.4@ *12*	33@ *14*	2662.72	1/2$^-$
		3437.4 *4*	100 *19*	283.54	1/2$^+$
		3721	86	0.0	3/2$^+$
3761.1?		3761		0.0	3/2$^+$
3778.1?		3778		0.0	3/2$^+$
3798.89	(1/2$^-$,3/2$^-$)	1527.9 *4*	69 *13*	2271.0	(3/2$^+$,5/2)
		3515.2 *3*	100 *13*	283.54	1/2$^+$
		3798.9 *5*	67 *13*	0.0	3/2$^+$
3822.1?		3822		0.0	3/2$^+$
3846.1?		3846		0.0	3/2$^+$
3850.3	1/2,3/2	3567		283.54	1/2$^+$
		3850		0.0	3/2$^+$
3857.1	1/2,3/2	3857	100	0.0	3/2$^+$
3894.1?		3894		0.0	3/2$^+$
3940.1?		3940		0.0	3/2$^+$
3963.1	1/2,3/2	3963	100	0.0	3/2$^+$
3977.1	1/2,3/2	3977	100	0.0	3/2$^+$
3981.1?		3981		0.0	3/2$^+$
4149.97	1/2$^+$,3/2	747.36 *16*	48 *11*	3402.54	3/2$^-$
		2856.6 *5*	67 *26*	1293.90	5/2$^+$
		3866	63	283.54	1/2$^+$
		4150.3 *6*	100 *33*	0.0	3/2$^+$
4206.1	1/2,3/2	4206		0.0	3/2$^+$
4216.10	1/2,3/2	1553.39 *14*	100	2662.72	1/2$^-$
		4215	30	0.0	3/2$^+$
4550.7	1/2,3/2	3086.9 *7*	85	1463.8	3/2$^+$
		4267	100	283.54	1/2$^+$
4594.9	1/2,3/2	794.3 *13*	43	3798.89	(1/2$^-$,3/2$^-$)
		4312	78	283.54	1/2$^+$
		4595	100	0.0	3/2$^+$
4764.4	1/2,3/2	2856.6 *5*	82	1907.52	3/2$^+$
		4482	100	283.54	1/2$^+$

† From (n,γ), (n,n′γ) if seen in these reactions otherwise from (α,3nγ) or Coulomb excitation.

‡ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies,

$^{137}_{56}Ba_{81}$-6

$\gamma(^{137}Ba)$ (continued)

assigned multipolarities, and mixing ratios, unless otherwise specified.

Multiply placed.

@ Multiply placed with intensity suitably divided.

& Placement of transition in the level scheme is uncertain.

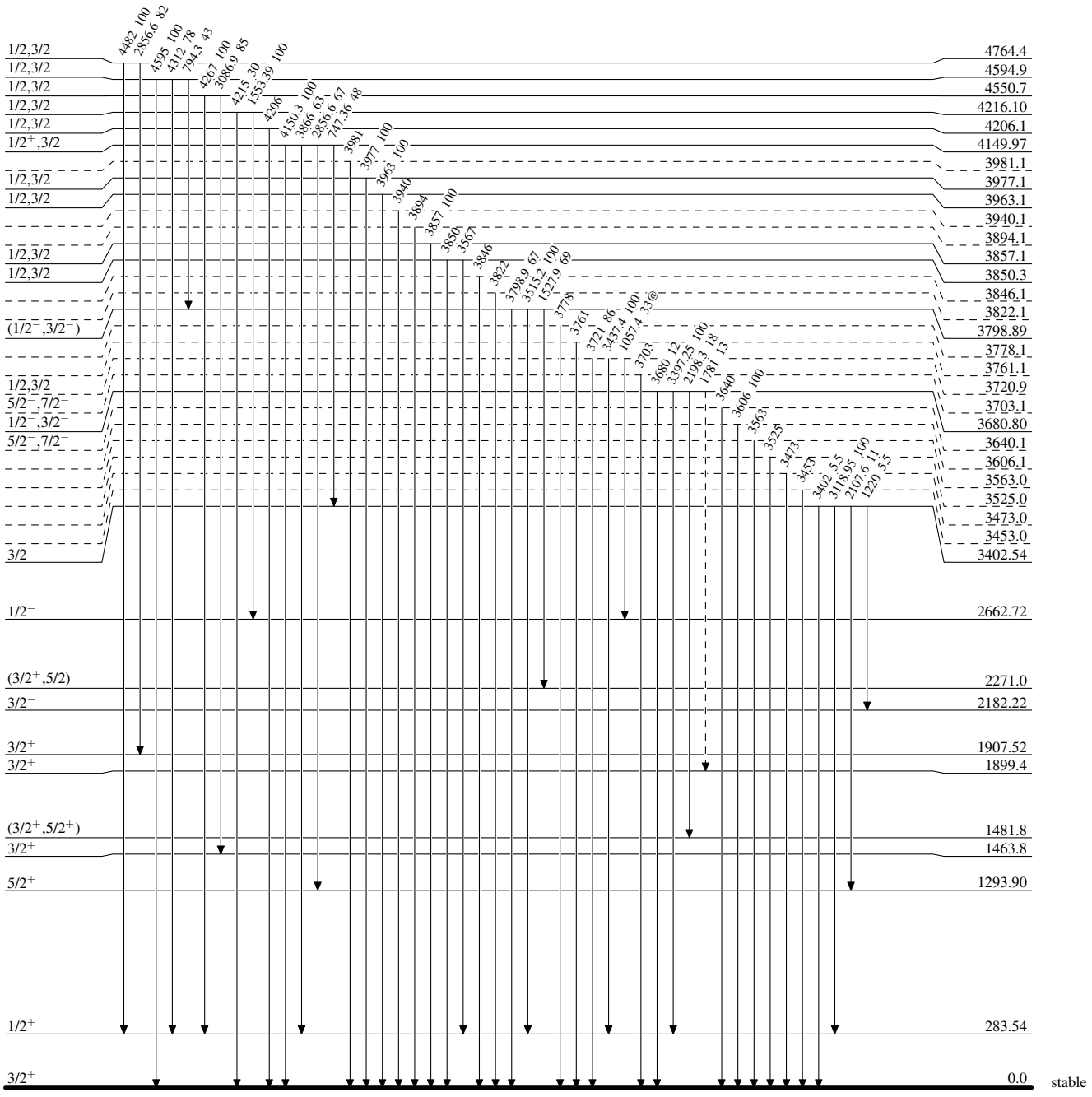
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided

- - - - - - ► γ Decay (Uncertain)



$^{137}_{56}Ba_{81}$

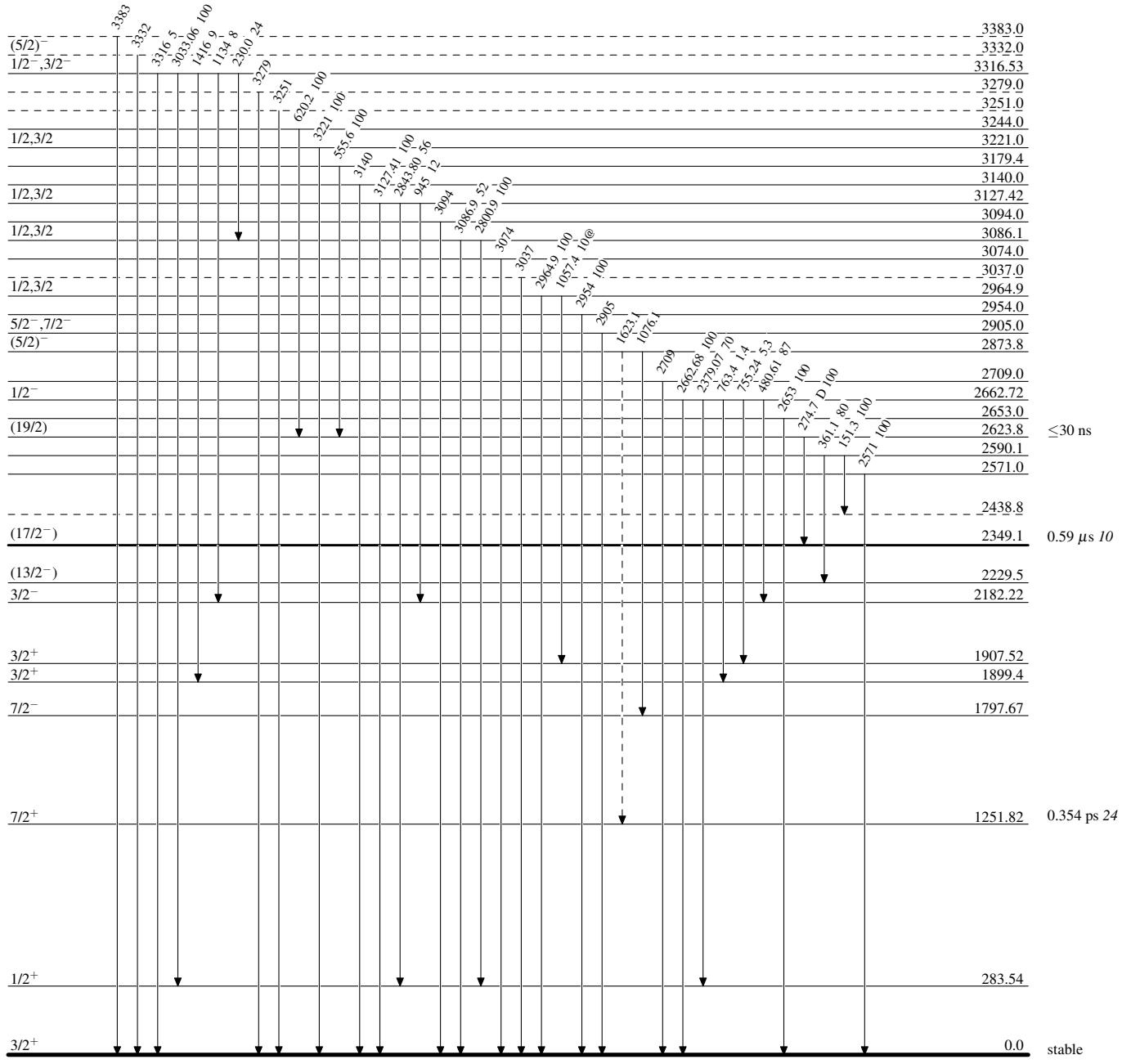
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided

γ Decay (Uncertain)



$^{137}_{56}Ba_{81}$

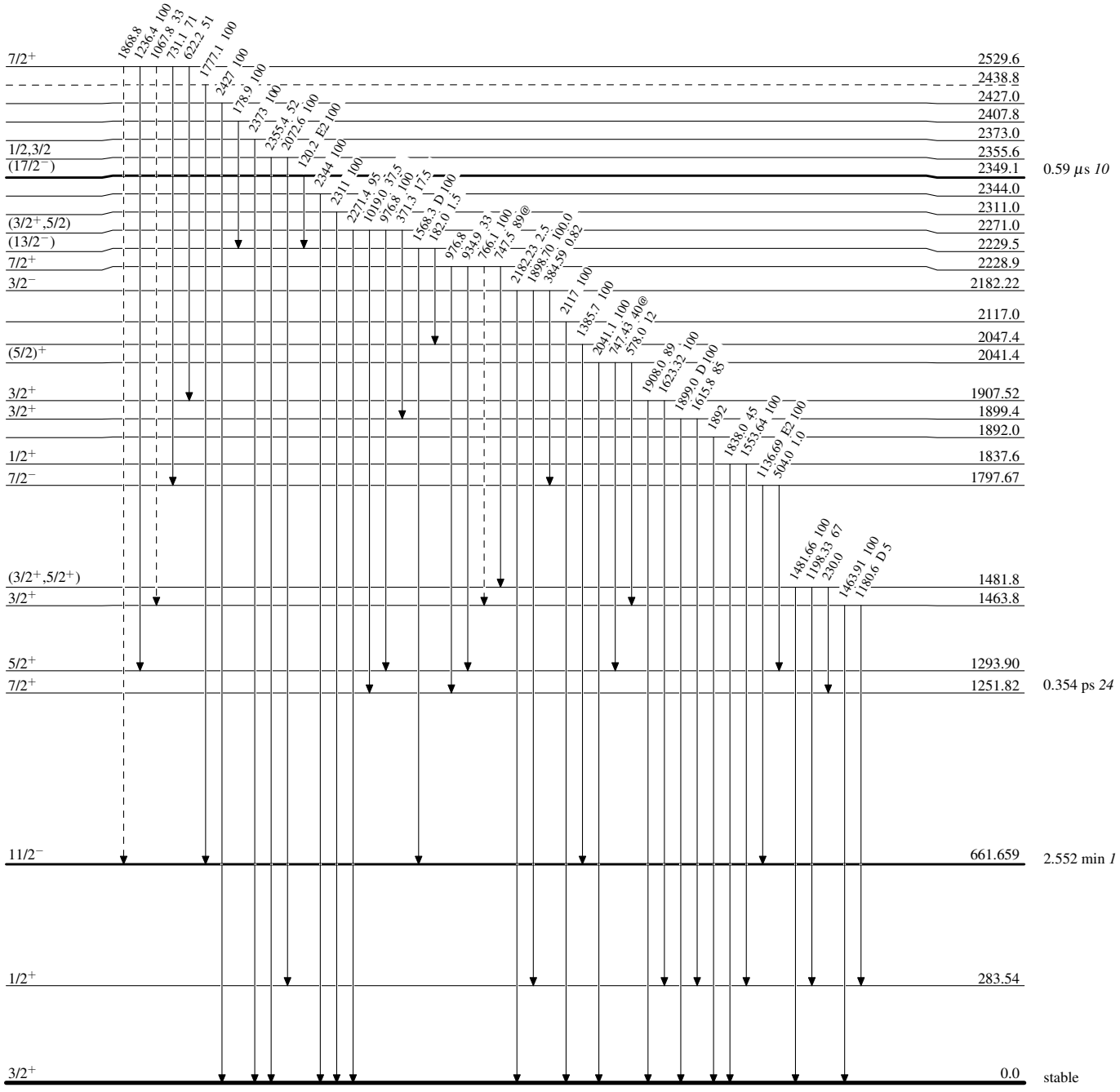
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided

γ Decay (Uncertain)

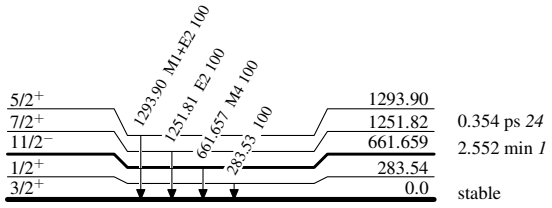


$^{137}_{56}Ba_{81}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided



$^{137}_{56}Ba_{81}$