Adopted Levels, Gammas

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 113,715 (2012)	31-May-2011

Q(β^-)=4234 *10*; S(n)=4166 *10*; S(p)=10708 *10*; Q(α)=−717 *8* 2012Wa38
Note: Current evaluation has used the following Q record 4234 104163 9 *10701* 12 −718 *7* 2011AuZZ.
Q(β^-)=4251 *18*, S(n)=4184 *15*, S(p)=10710 *17* (2003Au03).
2000Lh02: ^{238}U fission yield.
1992De46: Calculation of polarization electric dipole moment.
2006Sa56, 2004Cl07: Atomic mass measurements.
Calculated level energies, magnetic and quadrupole moments: 2007Ji14.
Calculated β^- spectrum: 2001Ka46.

^{143}Ba Levels

Cross Reference (XREF) Flags

A ^{143}Cs β^- decay
B ^{252}Cf,^{248}Cm SF decay
C ^{144}Cs β^-n decay

E(level)‡	J$^\pi$†	$T_{1/2}$	XREF	Comments
0.0#	5/2$^-$	14.5 s *3*	ABC	%β^-=100 μ=+0.443 *11* (1988We07,2011StZZ) Q=−0.88 *2* (1988We07,2011StZZ) J$^\pi$: hfs (1988We07,1983Mu12,1981Ne06), π from analysis of μ and large negative Q. They suggest decoupled configuration with main components ν(1/2$^-$[530]) and ν(3/2$^-$[532]). $T_{1/2}$: from wt av (same as LWM) based on $T_{1/2}$=14.33 s *8* (1986Ok03), 15.2 s *2* (1979En02), 15.17 s *38* (1976AmZW), 14.5 s *5* (1978Pa01), 13.2 s *3* (1969Ru14), 12 s *3* (1962Wa36). See also 1973Ta13. μ: Other: +0.454 *20* hfs (1983Mu12). Q: Other: −0.81 *7* hfs (1983Mu12).
33.29 *3*	(1/2)$^-$		A C	J$^\pi$: γ to 5/2$^-$ is E2, log *ft*=6.0 via 3/2$^+$ parent.
117.368# *24*	9/2$^-$	3.5 ns *8*	ABC	μ=+0.5 *3* (1999Sm05,2011StZZ) $T_{1/2}$: from LWM based on $T_{1/2}$=2.6 ns *8* (1999Sm05), 3.8 ns *12* from β^- decay (1979Sc11), 6 ns *2* from ^{252}Cf SF (1974ClZX). Other: 2005Fo17. μ from g-factor (1999Sm05).
228.83 *3*	(3/2)$^-$		A C	J$^\pi$: γ to 5/2$^-$ is M1, E2; γ to (1/2)$^-$ is M1+E2.
232.416 *14*	(3/2,5/2)$^-$		A C	J$^\pi$: γ to 5/2$^-$ is M1,E2; log *ft*=6.2 via 3/2$^+$ parent.
263.386 *13*	7/2$^-$		A C	J$^\pi$: γ to 5/2$^-$ is M1,E2; γ to 9/2$^-$ is M1,E2.
306.56 *3*	(3/2)$^-$		A C	J$^\pi$: γ's to 5/2$^-$ and (1/2)$^-$ are M1,E2 and have comparable Iγ.
460.7# *3*	13/2$^-$		B	
466.67 *3*	$^-$		A C	J$^\pi$: γ to (3/2)$^-$ is M1,E2.
534.83 *3*	5/2$^-$		A C	J$^\pi$: β feeding with log *ft*=6.8 from 3/2$^+$, γ to 9/2$^-$.
597.77? *11*			A	
659.98 *5*			A C	
670.57 *5*			A C	
695.53 *5*	($^+$)		A C	J$^\pi$: (E1) γ to π=−.
716.3& *3*	11/2$^-$		B	
729.27 *5*	5/2$^-$		A C	J$^\pi$: β feeding with log *ft*=6.6 from 3/2$^+$, γ to 9/2$^-$.
822.74 *5*			A C	
830.85 *8*			A	
834.10 *4*	3/2,5/2		A C	J$^\pi$: from $\gamma\gamma(\theta)$, γ's to (3/2)$^-$ and (7/2)$^-$.
933.69 *7*			A	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{143}Ba Levels (continued)

E(level)‡	Jπ†	XREF	E(level)‡	Jπ†	XREF	E(level)‡	Jπ†	XREF
953.8# *4*	17/2−	B	1299.7 *10*		A	2425.6& *5*	23/2−	B
1066.8@ *4*	15/2+	B	1410.5@ *4*	19/2+	B	2473.8@ *5*	27/2+	B
1082.70 *6*		A	1440.86 *8*		A	2586.5a *5*	25/2+	B
1085.12 *6*		A C	1452.25 *6*		A C	2638.96 *20*		A
1100.63 *5*		A C	1525.5a *4*	17/2+	B	2998.5# *6*	29/2−	B
1109.97 *7*		A	1575.99 *10*		A	3165.5@ *6*	31/2+	B
1153.55 *6*		A	1579.5# *4*	21/2−	B	3201.0a *6*	29/2+	B
1178.0a *5*	(13/2+)	B	1800.2& *4*	19/2−	B	3858.7a *8*	33/2+	B
1203.52 *20*		A	1880.0@ *4*	23/2+	B	3944.3@ *8*	35/2+	B
1232.0& *4*	15/2−	B	2007.4a *4*	21/2+	B			
1253.33 *6*		A	2271.2# *5*	25/2−	B			

† From SF decay except as noted. In SF decay J^{π} are based on multipolarities determined by ce, DCO ratios, linear polarization and band assignments.

‡ From least-squares fit to adopted Eγ.

Band(A): parity doublet s=−i, π=−.

@ Band(B): parity doublet s=−i, π=+.

& Band(C): parity doublet s=i, π=−.

a Band(D): parity doublet s=i, π=+.

Adopted Levels, Gammas (continued)

$\gamma(^{143}Ba)$

Eγ,Iγ seen in β^- decay are from 1989Ro20, unless noted otherwise.

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.‡	δ	α†	Comments
33.29	$(1/2)^-$	33.46	100	0.0	$5/2^-$	E2		125.7	α(L)=98.9 *14*; α(M)=21.8 *3*; α(N+..)=5.05 *7* α(N)=4.48 *7*; α(O)=0.569 *8*; α(P)=0.000631 *9* Mult.: From α(L)(exp)=107 *21* and ce(L)/ce(M)≈5 in ^{143}Cs β^- Decay, after normalizing electron and γ-ray intensities using α(K)(117γ, E2, theory)=0.747.
117.368	$9/2^-$	117.32 *5*	100	0.0	$5/2^-$	E2		1.094	B(E2)(W.u.)=1.0×10^2 *4* α(K)=0.741 *11*; α(L)=0.278 *4*; α(M)=0.0605 *9*; α(N+..)=0.01432 *21* α(N)=0.01260 *18*; α(O)=0.001686 *24*; α(P)=3.52×10^{-5} *5* Mult.: α(K)exp=0.846 *25*, α(L)exp=0.378 *113*, α(M)exp=0.102 *35*.
228.83	$(3/2)^-$	195.554@ *10*	100	33.29	$(1/2)^-$	M1,E2		0.169 *17*	α(K)=0.137 *7*; α(L)=0.025 *8*; α(M)=0.0053 *18*; α(N+..)=0.0013 *5* α(N)=0.0011 *4*; α(O)=0.00016 *5*; α(P)=8.1×10^{-6} *5* Mult.: α(K)exp=0.136 *40*, α(L)exp=0.031 *9*, α(K)=0.1316 (M1), α(K)=0.1445 (E2).
		228.80 *6*	20 *1*	0.0	$5/2^-$	M1+E2	0.6 *14*	0.102 *6*	α(K)=0.0856 *14*; α(L)=0.013 *4*; α(M)=0.0027 *9*; α(N+..)=0.00068 *19* α(N)=0.00058 *17*; α(O)=8.7×10^{-5} *21*; α(P)=5.4×10^{-6} *5* Mult.: α(K)exp=0.082 *30*, α(L)exp=0.014 *4*, α(K)=0.0865 (M1), α(K)=0.0872 (E2).
232.416	$(3/2,5/2)^-$	232.421@ *16*	100	0.0	$5/2^-$	M1,E2		0.100 *5*	α(K)=0.0820 *12*; α(L)=0.014 *4*; α(M)=0.0029 *7*; α(N+..)=0.00072 *16* α(N)=0.00062 *15*; α(O)=9.1×10^{-5} *18*; α(P)=4.9×10^{-6} *5* Mult.: α(K)exp=0.101 *30*, α(K)=0.0827 (M1), α(K)=0.0826 (E2).
263.386	$7/2^-$	146.00 *3*	11.0 *7*	117.368	$9/2^-$	M1,E2		0.42 *9*	α(K)=0.33 *4*; α(L)=0.07 *4*; α(M)=0.016 *8*; α(N+..)=0.0038 *19* α(N)=0.0033 *16*; α(O)=0.00047 *21*; α(P)=1.88×10^{-5} *5* Mult.: α(K)exp=0.34 *11*, α(K)=0.374 (E2), α(K)=0.296 (M1).
		263.383@ *14*	100 *3*	0.0	$5/2^-$	M1,E2		0.0685	α(K)=0.0569 *19*; α(L)=0.0092 *15*; α(M)=0.0019 *4*; α(N+..)=0.00047 *8* α(N)=0.00041 *7*; α(O)=6.0×10^{-5} *8*; α(P)=3.5×10^{-6} *4* Mult.: α(K)exp=0.098 *30*, α(K)=0.0594 (M1), α(K)=0.0555 (E2).
306.56	$(3/2)^-$	74.13 *5*	2.2 *2*	232.416	$(3/2,5/2)^-$				

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Adopted Levels, Gammas (continued)

γ(^{143}Ba) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.‡	δ	α†	Comments
306.56	(3/2)$^-$	77.75 *3*	0.6 *2*	228.83	(3/2)$^-$				
		272.656@ *90*	63 *2*	33.29	(1/2)$^-$	M1,E2		0.0619 *10*	α(K)=0.0515 *21*; α(L)=0.0082 *12*; α(M)=0.0017 *3*; α(N+..)=0.00042 *6* α(N)=0.00037 *6*; α(O)=5.4×10^{-5} *7*; α(P)=3.1×10^{-6} *4* Mult.: α(K)exp=0.044 *13*, α(K)=0.0542 (M1), α(K)=0.0497 (E2). I_γ: Iγ=3.9% *5* (1984So18).
		306.424@ *58*	100 *4*	0.0	5/2$^-$	M1+E2	1 *5*	0.0441 *19*	α(K)=0.037 *3*; α(L)=0.0057 *6*; α(M)=0.00118 *13*; α(N+..)=0.00029 *3* α(N)=0.000253 *25*; α(O)=3.74×10^{-5} *25*; α(P)=2.3×10^{-6} *3* Mult.: α(K)exp=0.035 *11*, α(K)=0.0399 (M1), α(K)=0.0345 (E2).
460.7	13/2$^-$	343.3 *3*	100	117.368	9/2$^-$	E2		0.0296	α(K)=0.0244 *4*; α(L)=0.00417 *6*; α(M)=0.000876 *13*; α(N+..)=0.000214 *3* α(N)=0.000186 *3*; α(O)=2.70×10^{-5} *4*; α(P)=1.408×10^{-6} *20*
466.67	$^-$	160.00 *5*	14.6 *8*	306.56	(3/2)$^-$	M1,E2		0.32 *6*	α(K)=0.250 *25*; α(L)=0.053 *23*; α(M)=0.011 *5*; α(N+..)=0.0027 *12* α(N)=0.0024 *11*; α(O)=0.00033 *13*; α(P)=1.44×10^{-5} *5* Mult.: α(K)exp=0.155 *46*, α(K)=0.278 (E2), α(K)=0.228 (M1).
		234.2 *1*	8.3 *8*	232.416	(3/2,5/2)$^-$				
		237.93 *4*	12.9 *34*	228.83	(3/2)$^-$				
		466.69 *5*	100 *4*	0.0	5/2$^-$	(E2)		0.01194	α(K)=0.01001 *14*; α(L)=0.001538 *22*; α(M)=0.000321 *5*; α(N+..)=7.91×10^{-5} *11* α(N)=6.84×10^{-5} *10*; α(O)=1.011×10^{-5} *15*; α(P)=5.98×10^{-7} *9* Mult.: α(K)exp=0.017 *5*, α(K)(E2)=0.0099. E_γ: from level energies.
534.83	5/2$^-$	302.51 *5*	36.5 *19*	232.416	(3/2,5/2)$^-$				
		417.44 *5*	10.3 *9*	117.368	9/2$^-$				
		534.80 *6*	100 *5*	0.0	5/2$^-$				
597.77?		480.4 *1*	100	117.368	9/2$^-$				
659.98		626.58 *6*	61.0 *24*	33.29	(1/2)$^-$				
		660.06 *8*	100 *3*	0.0	5/2$^-$				
670.57		407.2 *1*	100 *8*	263.386	7/2$^-$				
		438.1 *1*	26.9 *39*	232.416	(3/2,5/2)$^-$				
		553.2 *1*	69 *8*	117.368	9/2$^-$				
		670.6 *1*	92 *8*	0.0	5/2$^-$				
695.53	(+)	388.9 *1*	25 *1*	306.56	(3/2)$^-$				
		466.74 *5*	54 *3*	228.83	(3/2)$^-$	(E1)		0.00382 *6*	α(K)=0.00330 *5*; α(L)=0.000416 *6*; α(M)=8.51×10^{-5} *12*; α(N+..)=2.13×10^{-5} *3* α(N)=1.83×10^{-5} *3*; α(O)=2.78×10^{-6} *4*; α(P)=1.97×10^{-7} *3* Mult.: α(K)exp=0.0075 *23*. E_γ: from level energies.

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Adopted Levels, Gammas (continued)

γ(^{143}Ba) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[‡]	α[†]	Comments
695.53	(+)	662.1 *1*	100 *4*	33.29	$(1/2)^-$			
716.3	$11/2^-$	598.9 *3*	100	117.368	$9/2^-$			
729.27	$5/2^-$	611.93 *6*	64 *4*	117.368	$9/2^-$			
		729.23 *7*	100 *5*	0.0	$5/2^-$			
822.74		516.1 *1*	28 *5*	306.56	$(3/2)^-$			
		559.5 *1*	22.5 *25*	263.386	$7/2^-$			
		590.3 *1*	22.5	232.416	$(3/2,5/2)^-$			
		822.7 *1*	100 *50*	0.0	$5/2^-$			
830.85		524.1 *1*	71 *36*	306.56	$(3/2)^-$			
		602.2 *1*	100 *11*	228.83	$(3/2)^-$			
834.10	3/2,5/2	299.33 *5*	23.7 *11*	534.83	$5/2^-$			
		527.4 *1*	100 *4*	306.56	$(3/2)^-$			
		570.70 *7*	47.8 *22*	263.386	$7/2^-$			
		601.6 *1*	1.5 *4*	232.416	$(3/2,5/2)^-$			
		605.30 *7*	45.6 *19*	228.83	$(3/2)^-$			
		834.0 *1*	21.5 *15*	0.0	$5/2^-$			
933.69		670.2 *1*	100 *13*	263.386	$7/2^-$			
		933.75 *8*	94 *6*	0.0	$5/2^-$			
953.8	$17/2^-$	493.1 *3*	100	460.7	$13/2^-$	E2	0.01024	α(K)=0.00860 *13*; α(L)=0.001301 *19*; α(M)=0.000271 *4*; α(N+..)=6.69×10^{-5} *10* α(N)=5.79×10^{-5} *9*; α(O)=8.57×10^{-6} *12*; α(P)=5.17×10^{-7} *8*
1066.8	$15/2^+$	606.1 *3*	100	460.7	$13/2^-$	E1	0.00211 *3*	α(K)=0.00183 *3*; α(L)=0.000228 *4*; α(M)=4.66×10^{-5} *7*; α(N+..)=1.167×10^{-5} *17* α(N)=1.003×10^{-5} *14*; α(O)=1.530×10^{-6} *22*; α(P)=1.101×10^{-7} *16*
1082.70		616.0 *1*	43 *29*	466.67	–			
		776.06 *7*	57 *14*	306.56	$(3/2)^-$			
		1049.2	21 *6*	33.29	$(1/2)^-$			
		1083.4 *2*	100 *4*	0.0	$5/2^-$			
1085.12		618.5 *1*	41 *14*	466.67	–			
		778.6 *1*	91 *11*	306.56	$(3/2)^-$			
		852.7 *1*	39 *5*	232.416	$(3/2,5/2)^-$			
		856.4 *2*	100 *11*	228.83	$(3/2)^-$			
		1051.7 *1*	34 *2*	33.29	$(1/2)^-$			
1100.63		793.5[#]	<17[#]	306.56	$(3/2)^-$			
		837.1 *1*	68.3 *33*	263.386	$7/2^-$			
		868.2 *1*	100 *3*	232.416	$(3/2,5/2)^-$			
		871.8 *1*	70 *3*	228.83	$(3/2)^-$			
		1100.8 *1*	16.7 *17*	0.0	$5/2^-$			
1109.97		846.55 *8*	70 *4*	263.386	$7/2^-$			
		877.6 *1*	100 *9*	232.416	$(3/2,5/2)^-$			
1153.55		890.0 *1*	69 *6*	263.386	$7/2^-$			

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Adopted Levels, Gammas (continued)

γ(^{143}Ba) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.‡	α†	Comments
1153.55		921.20 *8*	100 *19*	232.416	$(3/2,5/2)^-$			
		1153.6 *1*	63 *6*	0.0	$5/2^-$			
1178.0	$(13/2^+)$	461.7 *5*	100	716.3	$11/2^-$			
		717.3& *5*		460.7	$13/2^-$			
1203.52		971.1 *2*	100	232.416	$(3/2,5/2)^-$			
1232.0	$15/2^-$	515.7 *5*	13	716.3	$11/2^-$			
		771.3 *3*	100	460.7	$13/2^-$	M1	0.00459 *7*	α(K)=0.00396 *6*; α(L)=0.000502 *7*; α(M)=0.0001029 *15*; α(N+..)=2.59×10^{-5} *4* α(N)=2.22×10^{-5} *4*; α(O)=3.42×10^{-6} *5*; α(P)=2.55×10^{-7} *4*
1253.33		786.7 *1*	71 *19*	466.67	–			
		1020.8 *1*	100 *10*	232.416	$(3/2,5/2)^-$			
		1024.5 *1*	62 *5*	228.83	$(3/2)^-$			
		1253.4 *1*	29 *5*	0.0	$5/2^-$			
1299.7		833 *1*	100	466.67	–			
1410.5	$19/2^+$	343.7 *5*	16	1066.8	$15/2^+$			
		456.7 *3*	100	953.8	$17/2^-$	E1	0.00402 *6*	α(K)=0.00347 *5*; α(L)=0.000438 *7*; α(M)=8.97×10^{-5} *13*; α(N+..)=2.24×10^{-5} *4* α(N)=1.93×10^{-5} *3*; α(O)=2.93×10^{-6} *5*; α(P)=2.07×10^{-7} *3*
1440.86		1208.4 *1*	100 *15*	232.416	$(3/2,5/2)^-$			
		1440.9 *1*	10 *5*	0.0	$5/2^-$			
1452.25		756.7 *1*	79 *4*	695.53	$(^+)$			
		792.1 *1*	100 *6*	659.98				
		985.7 *1*	34.6 *19*	466.67	–			
		1219.9 *1*	38.5 *58*	232.416	$(3/2,5/2)^-$			
1525.5	$17/2^+$	293.5 *3*	100	1232.0	$15/2^-$	E1	0.01207	α(K)=0.01039 *15*; α(L)=0.001333 *19*; α(M)=0.000273 *4*; α(N+..)=6.80×10^{-5} *10* α(N)=5.85×10^{-5} *9*; α(O)=8.84×10^{-6} *13*; α(P)=6.05×10^{-7} *9*
		347.5 *5*	43	1178.0	$(13/2^+)$			
		458.7 *5*	11	1066.8	$15/2^+$			
		571.7 *5*	14	953.8	$17/2^-$			
1575.99		1312.6 *1*	100	263.386	$7/2^-$			
1579.5	$21/2^-$	169.0 *5*	8	1410.5	$19/2^+$			
		625.7 *3*	100	953.8	$17/2^-$	E2	0.00544 *8*	α(K)=0.00461 *7*; α(L)=0.000656 *10*; α(M)=0.0001360 *20*; α(N+..)=3.38×10^{-5} *5* α(N)=2.91×10^{-5} *4*; α(O)=4.36×10^{-6} *7*; α(P)=2.82×10^{-7} *4*
1800.2	$19/2^-$	274.7& *5*		1525.5	$17/2^+$			
		389.7 *5*	70	1410.5	$19/2^+$			
		568.2 *5*	40	1232.0	$15/2^-$			
		846.4 *3*	100	953.8	$17/2^-$	M1	0.00368 *6*	α(K)=0.00318 *5*; α(L)=0.000402 *6*; α(M)=8.24×10^{-5} *12*;

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Adopted Levels, Gammas (continued)

γ(^{143}Ba) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.‡	α†	Comments
								α(N+..)=2.07×10^{-5} *3* α(N)=1.780×10^{-5} *25*; α(O)=2.74×10^{-6} *4*; α(P)=2.04×10^{-7} *3*
1880.0	23/2$^+$	300.5 *3*	100	1579.5	21/2$^-$	E1	0.01135	α(K)=0.00978 *14*; α(L)=0.001253 *18*; α(M)=0.000257 *4*; α(N+..)=6.39×10^{-5} *10* α(N)=5.50×10^{-5} *8*; α(O)=8.31×10^{-6} *12*; α(P)=5.70×10^{-7} *9*
		469.5 *3*	89	1410.5	19/2$^+$	E2	0.01174	α(K)=0.00984 *14*; α(L)=0.001510 *22*; α(M)=0.000315 *5*; α(N+..)=7.77×10^{-5} *11* α(N)=6.72×10^{-5} *10*; α(O)=9.92×10^{-6} *14*; α(P)=5.89×10^{-7} *9*
2007.4	21/2$^+$	207.2 *5*	15	1800.2	19/2$^-$			
		428 *5*		1579.5	21/2$^-$			
		481.9 *3*	100	1525.5	17/2$^+$	E2	0.01092	α(K)=0.00916 *13*; α(L)=0.001394 *20*; α(M)=0.000291 *5*; α(N+..)=7.18×10^{-5} *11* α(N)=6.20×10^{-5} *9*; α(O)=9.18×10^{-6} *13*; α(P)=5.49×10^{-7} *8*
		596.9 *5*	12	1410.5	19/2$^+$			
2271.2	25/2$^-$	391.2 *5*	50	1880.0	23/2$^+$			
		691.7 *3*	100	1579.5	21/2$^-$	E2	0.00423 *6*	α(K)=0.00360 *5*; α(L)=0.000502 *7*; α(M)=0.0001038 *15*; α(N+..)=2.58×10^{-5} *4* α(N)=2.23×10^{-5} *4*; α(O)=3.35×10^{-6} *5*; α(P)=2.21×10^{-7} *4*
2425.6	23/2$^-$	418.2 *5*	5	2007.4	21/2$^+$			
		625.4 *5*	25	1800.2	19/2$^-$			
		846.1 *5*	100	1579.5	21/2$^-$			
2473.8	27/2$^+$	202.6 *5*	33	2271.2	25/2$^-$	D		
		593.8 *3*	100	1880.0	23/2$^+$	E2	0.00622 *9*	α(K)=0.00527 *8*; α(L)=0.000759 *11*; α(M)=0.0001574 *23*; α(N+..)=3.90×10^{-5} *6* α(N)=3.37×10^{-5} *5*; α(O)=5.03×10^{-6} *7*; α(P)=3.20×10^{-7} *5*
2586.5	25/2$^+$	160.9 *5*		2425.6	23/2$^-$			
		579.1 *5*	100	2007.4	21/2$^+$	E2	0.00664 *10*	α(K)=0.00562 *8*; α(L)=0.000814 *12*; α(M)=0.0001689 *24*; α(N+..)=4.19×10^{-5} *6* α(N)=3.62×10^{-5} *6*; α(O)=5.40×10^{-6} *8*; α(P)=3.41×10^{-7} *5*
		706.5 *5*	6	1880.0	23/2$^+$			
2638.96		1805.5#	37#	834.10	3/2,5/2			
		1909.5#	53#	729.27	5/2$^-$			
		1978.9#	100#	659.98				
2998.5	29/2$^-$	524.7 *5*	67	2473.8	27/2$^+$			
		727.3 *5*	100	2271.2	25/2$^-$			
3165.5	31/2$^+$	167.0 *5*		2998.5	29/2$^-$			
		691.7 *5*	100	2473.8	27/2$^+$			
3201.0	29/2$^+$	614.5 *5*	100	2586.5	25/2$^+$			
		727.2 *5*	10	2473.8	27/2$^+$			
3858.7	33/2$^+$	657.7 *5*	100	3201.0	29/2$^+$			
3944.3	35/2$^+$	778.8 *5*	100	3165.5	31/2$^+$			

† Additional information 1.
‡ From α(K)exp, α(L)exp (1985Ra20, 1989Ro20) in ^{143}Cs β- decay; From DCO ratios, linear polarization in SF decay (1999Zh31).

$^{143}_{56}Ba_{87}$-7

Adopted Levels, Gammas (continued)

$\gamma(^{143}Ba)$ (continued)

ΔE=0.1-0.3; ΔIγ<10% (1985Ra20).
@ From 1979Bo26.
& Placement of transition in the level scheme is uncertain.

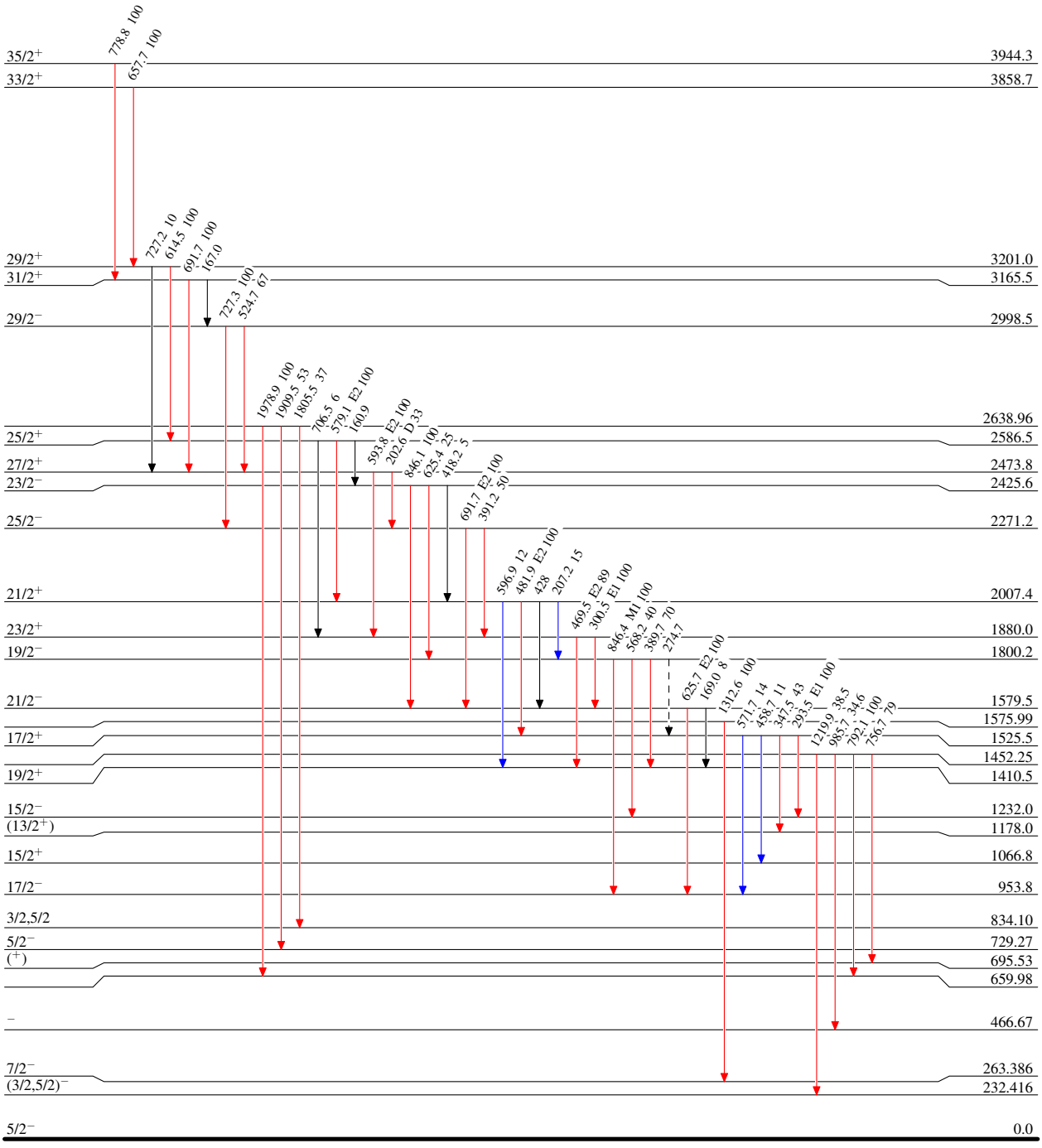
$^{143}_{56}Ba_{87}$-8

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

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



$^{143}_{56}Ba_{87}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

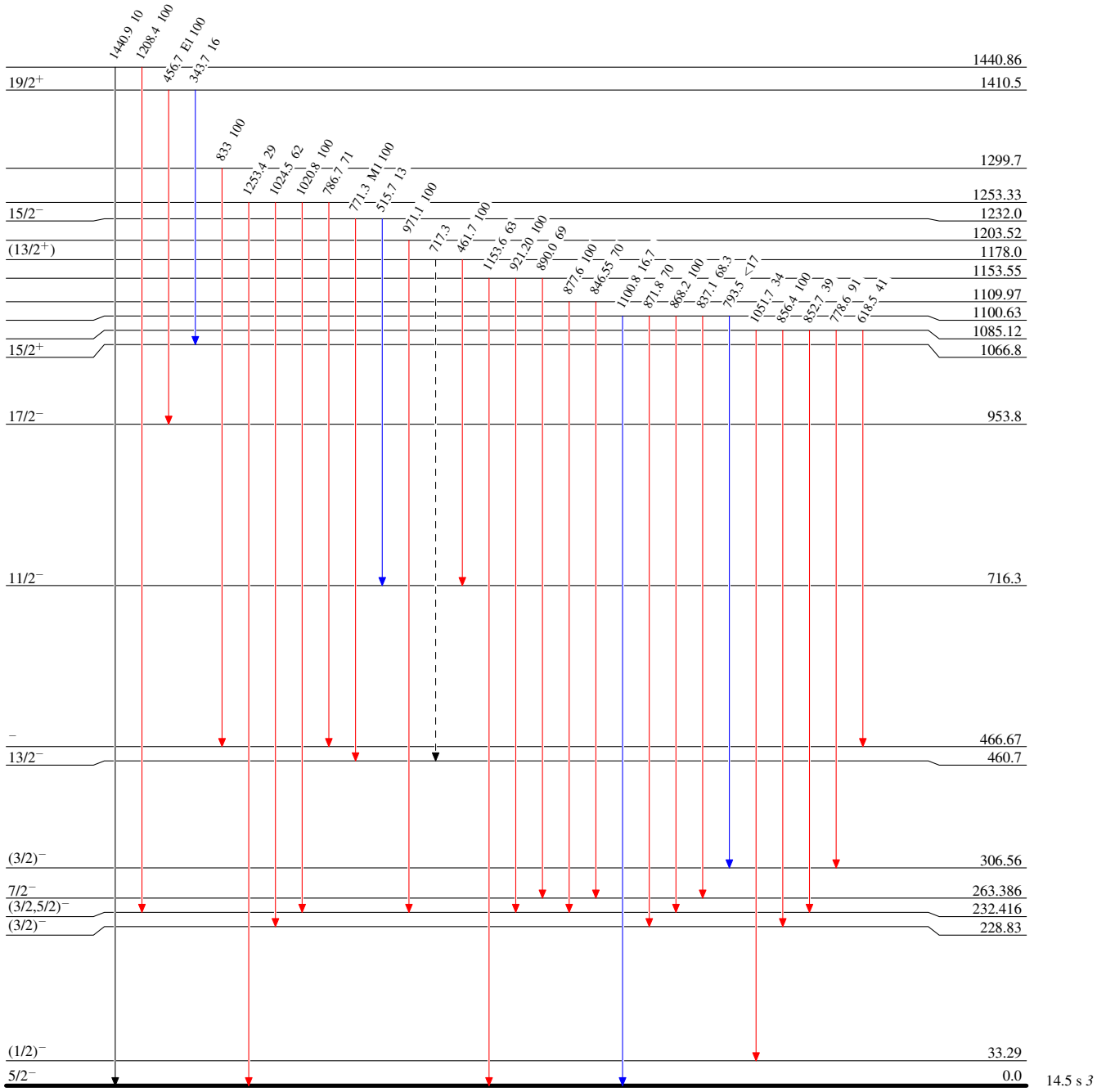
Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$

γ Decay (Uncertain)

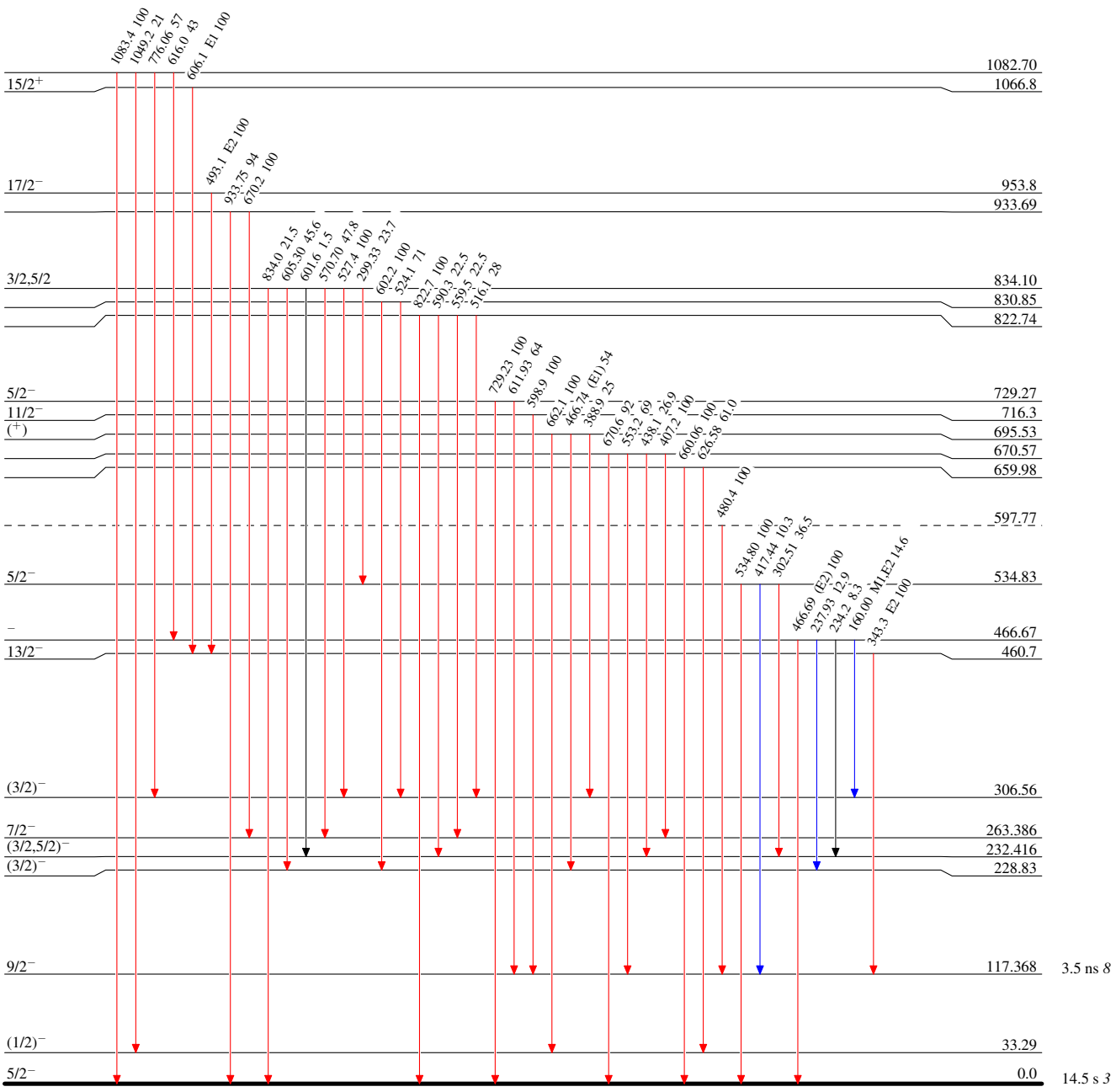


$^{143}_{56}Ba_{87}$

Adopted Levels, Gammas

Level Scheme (continued)

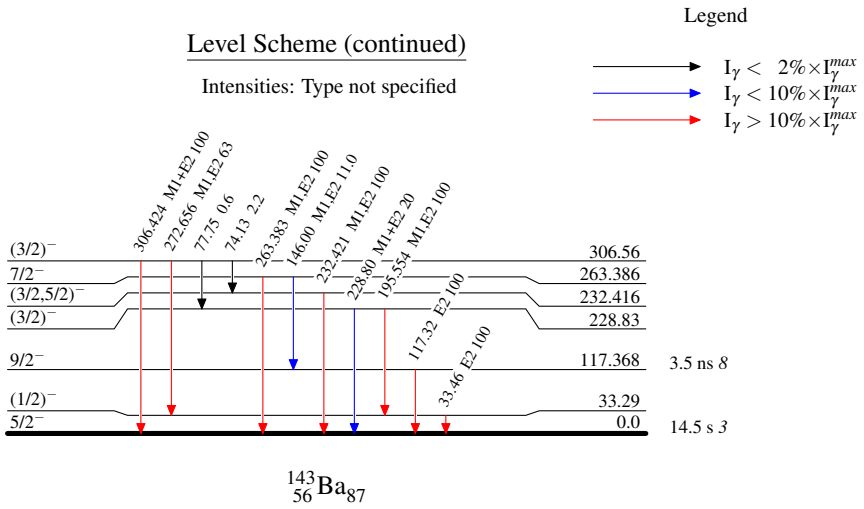
Intensities: Type not specified



Adopted Levels, Gammas

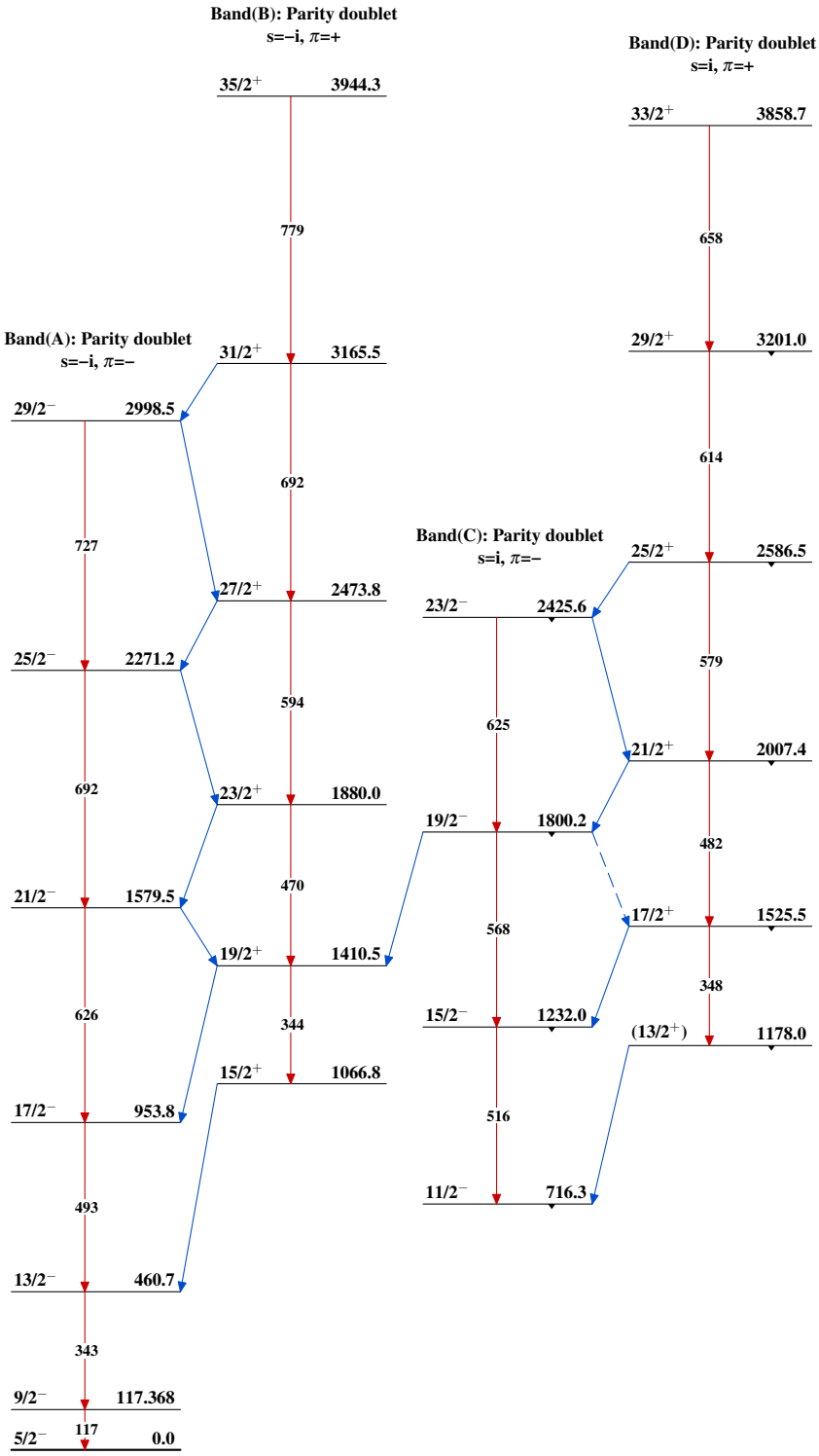
Level Scheme (continued)

Intensities: Type not specified



$^{143}_{56}Ba_{87}$

Adopted Levels, Gammas



$^{143}_{56}Ba_{87}$