^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, A. A. Rodionov and S. Sakharov, Balraj Singh	NDS 104, 497 (2005)	10-Feb-2005

Parent: ^{132}La: E=0; $J^\pi=2^-$; $T_{1/2}$=4.8 h *2*; Q(ε)=4690 *40*; %ε+%$β^+$ decay=100.0
Parent: ^{132}La: E=188.18 *11*; $J^\pi=6^-$; $T_{1/2}$=24.3 min *5*; Q(ε)=4690 *40*; %ε+%$β^+$ decay=24.0
See also separated datasets: ^{132}La ε decay (4.8 h) and ^{132}La ε decay (24.3 min).
1996Ku01, 2002Ga01: measured Eγ, Iγ, γγ, γγ(θ) for mixed activities from 4.8-H and 24.3-min isomers.
1975WiZJ (also 1974WiZW): measured Eγ, Iγ.

^{132}Ba Levels

E(level)†	J^π	Comments
0.0‡	0^+	
464.83‡ *25*	2^+	
1032.1 *3*	2^+	
1128.0‡ *4*	4^+	
1504.0 *4*	0^+	
1511.4 *4*	3^+	
1660.7 *4*	0^+	J^π: from γγ(θ) (2002Ga01).
1686.2 *3*	2^+	
1729.8 *4*	4^+	
1932.3‡ *6*	6^+	
1944.7 *4*	(4^+)	
1998.5 *4*	2^+	
2027.3 *4*	4^-	
2046.8 *6*	(2^+)	E(level): it should Be noted that two levels of almost the same energy are proposed by 1996Ku01 and 2002Ga01, one with $J^\pi=2^+$ and the other with $J^\pi=4^+$. The reason for introducing two levels near this energy is not clear to the evaluators, and it is possible that these two levels are the same.
2046.9 *4*	(4^+)	
2069.0 *3*	3^-	
2119.9 *4*	5^-	
2220.5 *4*	(3^-)	
2226.1 *5*	(5^+)	
2240.9 *6*	$6^{(+)}$	
2288.4 *5*	$(2^+,3,4^+)$	
2312.8 *5*	$5^{(-)}$	J^π: 4^+ In 1996Ku01.
2357.8 *6*	(6^-)	
2374.8 *4*	3^-	
2423.0 *6*	$6^{(-)}$	
2439.3 *6*	$(2^+$ to $6^+)$	J^π: $3,4^+$ In 1996Ku01.
2453.4 *4*	(1^-)	
2483.3 *6*	(7^-)	
2492.7 *5*	(4^+)	J^π: not $2^+,3^-,4^-,5^-,6^+$ from γγ(θ).
2505.8 *5*	(2)	J^π: not $1^-,3^-,4^+$ from γγ(θ).
2567.7 *3*	$(3)^-$	
2609.9 *6*	(5^-)	J^π: $5^-,(6^+)$ from γγ(θ) in table 1 of 1996Ku01; but in table 2, state that J^π not 6^+.
2693.6 *7*	$(4,5^-)$	J^π: not 3^-, 4^+, 5^+ from γγ(θ).
2718.4 *7*	$7^{(-)}$	
2772.7 *8*	$(4^-,6^-)$	J^π: not $4^-,5,6^+,7^-$ from γγ(θ) in table 2 of 1996Ku01; but $4^-,6^-$ assigned in authors′ table 1.
2791.8 *6*	(5^-)	J^π: not $4^-,5^+$ from γγ(θ).
2856.3 *5*	$(2)^-$	J^π: not $1^-,2^+,3,4^+$ from γγ(θ).
2876.9 *4*	(1^+)	
2928.2 *4*	(3^-)	
2946.6 *7*	(5^-)	J^π: not $4^-,5^+,6,7^+$ from γγ(θ). 1996Ku01 quote $J^\pi=5^-,6^-$ in figure 3 and $5^-,6^-,7^-$ in table 1.

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^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

^{132}Ba Levels (continued)

E(level)†	Jπ	Comments
2981.4 *7*	(1,2+)	
2982.1 *11*		
3018.8 *8*	(6−)	Jπ: not 5−,7− from γγ(θ).
3021.7 *8*	(1,2+,3)	Jπ: not 0+,2−,4+ from γγ(θ).
3069.2 *7*	(1+,2+,3,4+)	Jπ: not 0+,1−,2− from γγ(θ).
3083.3 *11*		
3158.7 *7*	(1)−	
3196.8 *11*		
3217.5 *11*		
3219.7 *5*	(2+)	Jπ: not 1−,2−,3,4+ from γγ(θ).
3229.7 *7*	(6+)	
3327.4 *7*	(4,5−)	
3336.7 *8*	(3−,5−)	
3363.63 *14*	(1,2+)	
3381.8 *8*		
3424.2 *5*	(3)−	
3434.8 *7*		
3461.5 *5*	(1,2+)	
3495.4 *5*	(3,4+)	
3527.7 *5*		
3562.2 *7*		
3562.8 *5*	(1,2+)	
3563.22 *22*	(1,2+)	
3591.7 *8*		
3607.9 *5*	(1,2+)	
3608.08 *17*		
3617.7 *11*		
3635.64 *18*	1−	
3664.7 *4*	(1−,2−,3−)	Jπ: 1+ In 2002Ga01.
3672.5 *8*		
3717.0 *5*		
3718.5 *4*		
3734.5 *7*	(2+,3,4+)	
3735.8 *11*		
3753.8 *5*	(2,3−)	
3768.6 *7*	(2,3)	
3769.5 *11*		
3773.7 *7*	(1,2+)	
3775.84 *25*	(2+)	
3788.1 *11*		
3820.6 *7*		
3821.4 *11*		
3835.2 *7*	(1,2+)	
3850.1 *5*		
3864.1 *8*		
3879.1 *11*	(1,2+)	
3887.7 *6*	(3,4+)	
3903.8 *6*	(2+,3,4+)	
3908.0 *7*		
3918.3 *8*	(2+,3,4+)	
3943.7 *11*	(0+ to 4+)	
3968.0 *7*	(2+,3,4+)	
3974.6 *7*	(3,4+)	
3975.5 *11*		
4010.5 *11*		

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^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

^{132}Ba Levels (continued)

E(level)[†]	Jπ
4028.2 *7*	(2$^+$,3,4$^+$)
4090.6 *11*	

[†] From least-squares fit to Eγ's, assuming Δ(Eγ)=0.2 keV for each γ ray. About 15 γ rays are poorly fitted if Δ(Eγ)=0.1 keV is assumed.
[‡] Band(A): g.s. band.

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

γ(^{132}Ba)

γγ(θ) data given under comments are from 2002Ga01. These values are given as asymmetry ratio R=yield(at 90°)/yield(at 180°).

E_i(level)	J_i^π	E_γ[†]	I_γ[†#]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[a]	Comments
464.83	2+	464.5	100	0.0	0+				Eγ=464.55 *3*, Iγ=100 *6*.
1032.1	2+	567.3	100	464.83	2+	M1+E2	+14 *+3−2*	0.00709 *1*	α=0.00709 *1*; α(K)=0.00594 *1*; α(L)=0.00086 Eγ=567.14 *3*, Iγ=20.7 *16*.
		1031.7	53.4 *10*	0.0	0+				Eγ=1031.7 *3*, Iγ=10.2 *7*.
1128.0	4+	663.1	100	464.83	2+				(663.1γ)(464.5γ)(θ): R(90°/180°)=0.88 *3*. Eγ=663.07 *3*, Iγ=11.9 *8*.
1504.0	0+	472.0	100	1032.1	2+				(472.0γ)(1031.7γ)(θ): R(90°/180°)=0.58 *5*. Eγ=472.05 *6*, Iγ=0.47 *4*.
		1039.0	10 *1*	464.83	2+				Iγ: ≤37 (2002Ga01).
1511.4	3+	383.4	4 *1*	1128.0	4+	(M1+E2)	+6 *1*	0.0213 *1*	α(K)=0.0177 *1*; α(L)=0.00288; α(M)=0.00060; α(N+..)=0.00016 Iγ: 8 (2002Ga01). (383.4γ)(663.1γ)(θ): R(90°/180°)=1.54 *13*. Eγ=383.28 *11*, Iγ=0.55 *8*.
		479.3	61 *2*	1032.1	2+	E2(+M1)	≥+12	0.0111	α(K)=0.0093; α(L)=0.00142; α(M)=0.00029 (479.3γ)(1031.7γ)(θ): R(90°/180°)=1.51 *8*. Eγ=479.47 *3*, Iγ=2.89 *22*.
		1046.5	100	464.83	2+	M1+E2	+2.19 *8*	0.00176 *1*	α=0.00176 *1*; α(K)=0.00151 *1*; α(L)=0.00019 (1046.5γ)(464.5γ)(θ): R(90°/180°)=0.93 *4*. Eγ=1046.56 *3*, Iγ=4.5 *3*.
1660.7	0+	628.6	30 *10*	1032.1	2+				(628.6γ)(1031.7γ)(θ): R(90°/180°)=0.74 *10*. Eγ=628.56 *6*, Iγ=0.154 *14*.
		1195.9	100	464.83	2+				(1195.9γ)(464.5γ)(θ): R(90°/180°)=0.55 *3*. Eγ=1195.82 *4*, Iγ=0.46 *3*.
1686.2	2+	654.1	12 *1*	1032.1	2+	(M1+E2)	+0.28 *8*	0.00679 *9*	α=0.00679 *9*; α(K)=0.00581 *8*; α(L)=0.00074 *1* (654.1γ)(1031.7γ)(θ): R(90°/180°)=1.23 *16*. Eγ=654.03 *4*, Iγ=0.45 *3*.
		1221.2	100	464.83	2+	M1+E2	−0.25 *2*	0.00159	α=0.00159; α(K)=0.00136; α(L)=0.00017 (1221.2γ)(464.5γ)(θ): R(90°/180°)=0.65 *3*. Eγ=1221.11 *3*, Iγ=3.86 *24*.
		1685.5	1.7 *3*	0.0	0+				Eγ=1684.81 *16*, Iγ=0.19 *3*.
1729.8	4+	218.2[@b]	0.15 *3*	1511.4	3+				
		601.7	41 *2*	1128.0	4+	(M1+E2)	−2.6 *2*	0.00638 *5*	α=0.00638 *5*; α(K)=0.00538 *5*; α(L)=0.00076 (601.7γ)(663.1γ)(θ): R(90°/180°)=0.96 *4*. Eγ=601.75 *3*, Iγ=0.45 *3*.
		697.7	100	1032.1	2+				(697.7γ)(567.3γ)(θ): R(90°/180°)=1.02 *4*. (697.7γ)(1031.7γ)(θ): R(90°/180°)=0.89 *4*. Eγ=697.68 *3*, Iγ=1.24 *8*.
		1264.8	34 *1*	464.83	2+				(1264.8γ)(464.5γ)(θ): R(90°/180°)=0.88 *4*. Eγ=1264.77 *4*, Iγ=0.37 *3*.

$^{132}_{56}Ba_{76}$-4

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

γ(^{132}Ba) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†#]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[a]	Comments
1932.3	6+	804.2	100	1128.0	4+				(804.2γ)(663.1γ)(θ): R(90°/180°)=0.83 *5*. Eγ=803.40 *22*, Iγ=0.042 *13*.
1944.7	(4+)	816.6	100	1128.0	4+	(M1(+E2))	+0.03 *6*	0.00409 *1*	α=0.00409 *1*; α(K)=0.00350 *1*; α(L)=0.00044 (816.6γ)(663.1γ)(θ): R(90°/180°)=0.80 *5*. Eγ=816.13 *3*, Iγ=0.70 *5*.
		912.7	7 *1*	1032.1	2+				(912.7γ)(567.3γ)(θ): R(90°/180°)=0.86 *9*. (912.7γ)(1031.7γ)(θ): R(90°/180°)=0.83 *18*. Eγ=912.50 *12*, Iγ=0.073 *14*.
		1479.7	4 *1*	464.83	2+				(1479.7γ)(464.5γ)(θ): R(90°/180°)=0.82 *23*. Eγ=1479.7 *5*, Iγ=0.020 *13* (deleted by 1975WiZJ).
1998.5	2+	312.4[@b]	1.8 *5*	1686.2	2+				
		487.1[@b]	0.8 *3*	1511.4	3+				
		494.4	1.0 *5*	1504.0	0+				(494.4γ)(472.0γ)(θ): R(90°/180°)=0.7 *5*.
		966.5	28 *5*	1032.1	2+	(M1+E2)	+0.11 *6*	0.00275 *1*	α=0.00275 *1*; α(K)=0.00235 *1*; α(L)=0.00030 (966.5γ)(1031.7γ)(θ): R(90°/180°)=0.83 *9*. Eγ=966.45 *3*, Iγ=0.52 *4*.
		1533.6	100	464.83	2+	(M1(+E2))	+0.02 *2*	0.00083	α=0.00083; α(K)=0.00083 (1533.6γ)(464.5γ)(θ): R(90°/180°)=0.71 *4*. Eγ=1533.66 *4*, Iγ=1.94 *12*.
		1998.3	30 *5*	0.0	0+				Iγ: 32 *4* (2002Ga01, as per e-mail reply from A. Gade on Jan 16/02). Iγ=100 quoted in table 5 of 2002Ga01 is a misprint. Eγ=1998.38 *6*, Iγ=0.61 *4*.
2027.3	4−	82.6	0.06 *2*	1944.7	(4+)				
		297.5	33 *3*	1729.8	4+				(297.5γ)(1264.8γ)(θ): R(90°/180°)=0.84 *5*.
		515.9	95 *5*	1511.4	3+				(155.9γ)(1046.5γ)(θ): R(90°/180°)=1.17 *5*. Eγ=515.78 *9*, Iγ=6.6 *7*.
		899.2	100	1128.0	4+	(E1(+M2))	−0.02 *3*	0.00094 *2*	α=0.00094 *2*; α(K)=0.00081 *1*; α(L)=9.9×10^{-5} *2* (899.2γ)(663.1γ)(θ): R(90°/180°)=0.76 *3*. Eγ=899.32 *3*, Iγ=6.1 *4*.
		1562.3	0.6 *3*	464.83	2+				
2046.8	(2+)	1581.7	100	464.83	2+	(M1(+E2))	−0.02 *2*		Eγ=1581.75 *4*, Iγ=1.16 *8*.
2046.9	(4+)	102.3	2.4 *3*	1944.7	(4+)				
		317.1	80 *8*	1729.8	4+				(317.1γ)(697.7γ)(θ): R(90°/180°)=0.81 *10*. Eγ=317.3 *4*, Iγ=0.07 *3*.
		360.5	5.7 *6*	1686.2	2+				Eγ=360.66 *12*, Iγ=0.26 *8*.
		386.0	0.5 *1*	1660.7	0+				
		535.5	73 *7*	1511.4	3+				Eγ=534.6 *3*, Iγ=0.11 *3*.
		918.8	100	1128.0	4+				(918.8γ)(663.1γ)(θ): R(90°/180°)=0.97 *11*. Eγ=918.68 *9*, Iγ=0.26 *3*.
		1014.7	43 *4*	1032.1	2+				(1014.7γ)(567.3γ)(θ): R(90°/180°)=0.99 *9*. (1014.7γ)(1031.7γ)(θ): R(90°/180°)=1.02 *19*. Eγ=1014.59 *19*, Iγ=0.060 *15*.
		1581.9	12.8 *13*	464.83	2+				Eγ=1581.75 *4*, Iγ=1.16 *8*.

$^{132}_{56}Ba_{76}$-5

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

γ(^{132}Ba) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†#]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[a]	Comments
2069.0	3⁻	382.8	3.0 *2*	1686.2	2⁺				(382.8γ)(1221.2γ)(θ): R(90°/180°)=1.18 *14*. Eγ=383.27 *11*, Iγ=0.51 *8*.
		940.9	7.3 *3*	1128.0	4⁺	(E1(+M2))	−0.03 *4*	0.00087 *3*	α=0.00087 *3*; α(K)=0.00074 *2* (940.9γ)(663.1γ)(θ): R(90°/180°)=1.25 *11*. Eγ=940.87 *5*, Iγ=0.35 *3*.
		1036.8	8.6 *3*	1032.1	2⁺	(E1(+M2))	−0.04 *16*	0.00072 *19*	α=0.00072 *19*; α(K)=0.00062 *16* (1036.8γ)(567.3γ)(θ): R(90°/180°)=1.05 *8*. (1036.8γ)(1031.7γ)(θ): R(90°/180°)=1.06 *13*. Eγ=1036.92 *9*, Iγ=0.42 *4*.
		1604.0	100	464.83	2⁺	(E1(+M2))	+0.02 *2*		(1604.0γ)(464.5γ)(θ): R(90°/180°)=1.14 *16*. Eγ=1604.03 *3*, Iγ=4.8 *3*.
		2068.6	0.15 *7*	0.0	0⁺				Eγ=2068.3 *4*, Iγ=0.030 *11*.
2119.9	5⁻	73.1	0.3 *1*	2046.9	(4⁺)				
		92.7	0.6 *1*	2027.3	4⁻				
		175.2	3.3 *2*	1944.7	(4⁺)	(E1(+M2))	+0.01 *3*	0.0484 *19*	α(K)=0.0415 *16*; α(L)=0.0054 *3*; α(M)=0.00110 *6*; α(N+..)=0.00029 *2* (175.2γ)(816.6γ)(θ): R(90°/180°)=1.11 *70*. (175.2γ)(912.7γ)(θ): R(90°/180°)=1.08 *16*. (175.2γ)(1479.7γ)(θ): R(90°/180°)=1.4 *4*.
		187.6	5.3 *3*	1932.3	6⁺	(E1(+M2))	+0.01 *2*	0.0401 *8*	α(K)=0.0344 *7*; α(L)=0.00449 *12*; α(M)=0.00091 *3*; α(N+..)=0.00024 *1* (187.6γ)(804.2γ)(θ): R(90°/180°)=1.13 *6*.
		390.2	100	1729.8	4⁺				(390.2γ)(1264.8γ)(θ): R(90°/180°)=1.14 *5*. Eγ=390.51 *11*, Iγ=0.51 *8*.
		991.9	68 *1*	1128.0	4⁺	(E1+M2)	+0.03 *1*	0.00078	α=0.00078; α(K)=0.00067 (991.9γ)(601.7γ)(θ): R(90°/180°)=0.94 *4*. (991.9γ)(663.1γ)(θ): R(90°/180°)=1.10 *5*. (991.9γ)(697.7γ)(θ): R(90°/180°)=1.15 *5*. Eγ=991.95 *9*, Iγ=0.18 *2*.
		1087.9	0.06 *3*	1032.1	2⁺				Eγ=1089.7 *3*, Iγ=0.038 *14*.
		1655.0	0.8 *2*	464.83	2⁺				
2220.5	(3⁻)	275.9	5 *1*	1944.7	(4⁺)				
		534.4	7 *1*	1686.2	2⁺				Eγ=534.6 *3*, Iγ=0.11 *3*.
		709.1	16 *1*	1511.4	3⁺				Eγ=708.79 *21* Iγ=0.051 *15*.
		1092.5	26 *3*	1128.0	4⁺				(1092.5γ)(663.1γ)(θ): R(90°/180°)=1.10 *19*. Eγ=1092.56 *10*, Iγ=0.111 *15*.
		1188.4	100	1032.1	2⁺	(E1+M2)	−0.11 *8*	0.00060 *8*	α=0.00060 *8*; α(K)=0.00051 *7* (1188.4γ)(1031.7γ)(θ): R(90°/180°)=1.26 *21*. Eγ=1188.35 *5*, Iγ=0.38 *3*.
		1755.5	23 *5*	464.83	2⁺				(1755.5γ)(464.5γ)(θ): R(90°/180°)=1.08 *16*. Eγ=1755.51 *7*, Iγ=0.30 *3*.
2226.1	(5⁺)	496.4	7.3 *8*	1729.8	4⁺				
		714.7	100	1511.4	3⁺				
		1098.1	22 *1*	1128.0	4⁺				

$^{132}_{56}Ba_{76}$-6

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

γ(^{132}Ba) (continued)

E_i(level)	J_i^π	E_γ [†]	I_γ [†#]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[a]	Comments
2240.9	$6^{(+)}$	308.6	5 *1*	1932.3	6^+	(M1(+E2))	−0.2 *+3−4*	0.0454 *7*	α(K)=0.0389 *12*; α(L)=0.00514 *16*; α(M)=0.00105 *4*; α(N+..)=0.00029 *1*
		511.1	78 *3*	1729.8	4^+				(511.1γ)(601.7γ)(θ): R(90°/180°)=1.13 *11*. (511.1γ)(697.7γ)(θ): R(90°/180°)=0.99 *9*. Additional information 1. (511.1γ)(1264.8γ)(θ): R(90°/180°)=0.83 *10*.
		1112.9	100	1128.0	4^+				(1112.9γ)(663.1γ)(θ): R(90°/180°)=0.94 *9*.
2288.4	$(2^+,3,4^+)$	602.2	23 *6*	1686.2	2^+				Eγ=601.75 *3*, Iγ=0.45 *3*.
		776.9	28 *7*	1511.4	3^+				Eγ=777.55 *21*, Iγ=0.038 *10*.
		1160.3	43 *10*	1128.0	4^+				(1160.3γ)(663.1γ)(θ): R(90°/180°)=0.88 *13*. Eγ=1160.08 *18*, Iγ=0.14 *3*.
		1256.3	52 *10*	1032.1	2^+				Eγ=1256.38 *11*, Iγ=0.098 *12*.
		1823.5	100	464.83	2^+				Eγ=1824.08 *4*, Iγ=0.72 *5*.
2312.8	$5^{(-)}$	192.8	2.8 *5*	2119.9	5^-				
		265.9	1.3 *2*	2046.9	(4^+)				(265.9γ)(918.8γ)(θ): R(90°/180°)=1.16 *12*. (265.9γ)(1014.7γ)(θ): R(90°/180°)=1.36 *25*.
		285.4	100	2027.3	4^-				
		368.2	0.7 *1*	1944.7	(4^+)				
		380.4	0.04 *1*	1932.3	6^+				
		583.1	8.3 *2*	1729.8	4^+				
		801.5	0.13 *3*	1511.4	3^+				
2357.8	(6^-)	131.7	1.8 *4*	2226.1	(5^+)				(131.7γ)(496.4γ)(θ): R(90°/180°)=1.3 *7*. (131.7γ)(714.7γ)(θ): R(90°/180°)=1.08 *9*. (131.7γ)(1098.1γ)(θ): R(90°/180°)=1.38 *22*.
		237.9	100	2119.9	5^-				
		330.5	16 *2*	2027.3	4^-				(330.5γ)(297.5γ)(θ): R(90°/180°)=0.90 *12*. (330.5γ)(515.9γ)(θ): R(90°/180°)=1.07 *7*. (330.5γ)(899.2γ)(θ): R(90°/180°)=0.85 *6*.
2374.8	3^-	154.3	0.03 *1*	2220.5	(3^-)				
		305.8	7.0 *1*	2069.0	3^-	(M1+E2)		0.0456	α(K)=0.0387 *17*; α(L)=0.0055 *4*; α(M)=0.00113 *8*; α(N+..)=0.00031 *2* δ: −1.13≤δ≤−0.04. Eγ=305.85 *10*, Iγ=0.66 *9*.
		376.0	0.13 *3*	1998.5	2^+				
		430.1	2.3 *1*	1944.7	(4^+)				Eγ=430.13 *6*, Iγ=0.26 *3*.
		645.0	3.5 *3*	1729.8	4^+	(E1+M2)	+0.06 *5*	0.00193 *16*	α=0.00193 *16*; α(K)=0.00165 *14*; α(L)=0.00021 *2* (645.0γ)(601.7γ)(θ): R(90°/180°)=0.95 *11*. (645.0γ)(697.7γ)(θ): R(90°/180°)=1.28 *12*. Eγ=645.05 *4*, Iγ=0.41 *3*.
		688.7	3.0 *1*	1686.2	2^+				(688.7γ)(1221.2γ)(θ): R(90°/180°)=1.10 *9*. Eγ=688.66 *3*, Iγ=0.35 *3*.
		1246.8	4.1 *1*	1128.0	4^+				Eγ=1246.81 *3*, Iγ=0.46 *3*.
		1342.7	4.1 *2*	1032.1	2^+	(E1+M2)	+0.15 *14*	0.00050 *14*	α=0.00050 *14*; α(K)=0.00043 *12*

$^{132}_{56}Ba_{76}$-7

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

γ(^{132}Ba) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†#]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[a]	Comments
									(1342.7γ)(567.3γ)(θ): R(90°/180°)=1.15 *9*. (1342.7γ)(1031.7γ)(θ): R(90°/180°)=1.25 *14*. Eγ=1342.81 *7*, Iγ=0.47 *4*.
2374.8	3⁻	1909.8	100	464.83	2⁺	E1(+M2)	−0.02 *1*		(1909.8γ)(464.5γ)(θ): R(90°/180°)=1.16 *5*. Eγ=1909.91 *4*, Iγ=11.9 *8*.
2423.0	6(⁻)	196.9	1.0 *1*	2226.1	(5⁺)				
		303.0	100	2119.9	5⁻				
		395.6	68 *4*	2027.3	4⁻				(395.6γ)(515.9γ)(θ): R(90°/180°)=1.10 *7*. (395.6γ)(899.2γ)(θ): R(90°/180°)=0.88 *6*. (395.6γ)(297.5γ)(θ): R(90°/180°)=0.81 *11*.
2439.3	(2⁺ to 6⁺)	709.5	10 *1*	1729.8	4⁺				Eγ=708.79 *21*, Iγ=0.051 *15*.
		1311.3	100	1128.0	4⁺				(1311.3γ)(663.1γ)(θ): R(90°/180°)=1.36 *19*.
2453.4	(1⁻)	767.4	3 *1*	1686.2	2⁺				Eγ=767.7 *4*, Iγ=0.034 *22*.
		792.8	4 *1*	1660.7	0⁺				
		949.1	10 *1*	1504.0	0⁺				(949.1γ)(472.0γ)(θ): R(90°/180°)=1.13 *26*. Eγ=948.8 *4*, Iγ=0.022 *11*.
		2453.0	100	0.0	0⁺				Eγ=2452.7 *6*, Iγ=0.49 *4*.
2483.3	(7⁻)	125.5	22 *4*	2357.8	(6⁻)				
		242.3	50 *5*	2240.9	6(+)				(242.3γ)(1112.9γ)(θ): R(90°/180°)=1.14 *10*.
		363.3	100	2119.9	5⁻				(363.3γ)(175.2γ)(θ): R(90°/180°)=0.98 *13*. (363.3γ)(187.6γ)(θ): R(90°/180°)=0.94 *13*. (363.3γ)(390.2γ)(θ): R(90°/180°)=1.09 *6*. (363.3γ)(991.9γ)(θ): R(90°/180°)=1.08 *8*.
		551.1	9 *2*	1932.3	6⁺				(551.1γ)(804.2γ)(θ): R(90°/180°)=0.98 *14*.
2492.7	(4⁺)	179.9	18 *2*	2312.8	5(⁻)				(179.9γ)(285.4γ)(θ): R(90°/180°)=1.43 *11*.
		548.0	8 *1*	1944.7	(4⁺)				(548.0γ)(816.6γ)(θ): R(90°/180°)=0.96 *12*. Additional information 2.
		1364.6	100	1128.0	4⁺	(M1+E2)	+0.40 *5*	0.00122 *1*	α=0.00122 *1*; α(K)=0.00104 *1*; α(L)=0.00013 (1364.6γ)(663.1γ)(θ): R(90°/180°)=1.04 *6*. Eγ=1364.08 *8*, Iγ=0.24 *3*.
2505.8	(2)	819.7	3.9 *4*	1686.2	2⁺				(819.7γ)(1221.2γ)(θ): R(90°/180°)=0.82 *22*.
		2040.7	100	464.83	2⁺	D+Q	−0.11 *3*		δ: uncertainty of 0.06 quoted in table 3 of 2002Ga01 is a misprint (as per e-mail reply from A. Gade on Jan 16/02). (2040.7γ)(464.5γ)(θ): R(90°/180°)=0.77 *5*. Eγ=2040.79 *5*, Iγ=1.11 *7*.
2567.7	(3)⁻	192.9	15 *2*	2374.8	3⁻				(192.9γ)(1909.8γ)(θ): R(90°/180°)=0.9 *4*. (192.9γ)(1342.7γ)(θ): R(90°/180°)=1.18 *23*.
		254.8	0.5 *2*	2312.8	5(⁻)				
		279.3	1.0 *2*	2288.4	(2⁺,3,4⁺)				
		347.1	0.8 *2*	2220.5	(3⁻)				
		498.8	7 *1*	2069.0	3⁻	M1+E2		0.0117 *18*	α(K)=0.0099 *16*; α(L)=0.00137 *11*; α(M)=0.00028 *2* −1.03≤δ≤−0.08. Eγ=498.79 *3*, Iγ=0.70 *6*.

$^{132}_{56}Ba_{76}$-8

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

γ(^{132}Ba) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†#]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[a]	Comments
2567.7	(3)$^-$	520.7	0.4 *1*	2046.9	(4$^+$)				
		540.4	100	2027.3	4$^-$				Eγ=540.363 *23*, Iγ=10.1 *7*.
		569.1	10 *2*	1998.5	2$^+$	(E1+M2)	−0.06 *4*	0.00254 *18*	α=0.00254 *18*; α(K)=0.00218 *15*; α(L)=0.00027 *2* (569.1γ)(1533.6γ)(θ): R(90°/180°)=1.05 *6*. (569.1γ)(1998.3γ)(θ): R(90°/180°)=1.23 *13*.
		623.0	3 *1*	1944.7	(4$^+$)	(E1+M2)	+0.06 *3*	0.00208 *10*	α=0.00208 *10*; α(K)=0.00178 *8*; α(L)=0.00022 *1* (623.0γ)(912.7γ)(θ): R(90°/180°)=1.7 *4*. Eγ=623.03 *3*, Iγ=0.34 *3*.
		837.9	1.1 *4*	1729.8	4$^+$				(837.9γ)(601.7γ)(θ): R(90°/180°)=0.74 *16*. Eγ=838.68 *24*, Iγ=0.13 *3*.
		881.6	11 *1*	1686.2	2$^+$				Eγ=881.565 *25*, Iγ=1.23 *8*; may be misprint in 1996Ku01.
		1439.7	3.2 *3*	1128.0	4$^+$				Eγ=1439.80 *5*, Iγ=0.37 *4*.
		2102.8	67 *4*	464.83	2$^+$	(E1+M2)	−0.02 *1*		(2102.8γ)(464.5γ)(θ): R(90°/180°)=1.19 *5*. Eγ=2102.84 *5*, Iγ=7.7 *5*.
2609.9	(5$^-$)	117.2	1.1 *3*	2492.7	(4$^+$)				
		126.6	3.6 *4*	2483.3	(7$^-$)				(126.6γ)(242.3γ)(θ): R(90°/180°)=0.98 *12*. (126.6γ)(363.3γ)(θ): R(90°/180°)=1.13 *10*. (126.6γ)(551.1γ)(θ): R(90°/180°)=0.9 *3*.
		252.0	24 *2*	2357.8	(6$^-$)				(252.0γ)(131.7γ)(θ): R(90°/180°)=1.20 *23*. (252.0γ)(330.5γ)(θ): R(90°/180°)=0.85 *10*.
		297.1	96 *3*	2312.8	5$^{(-)}$				
		383.7	3 *1*	2226.1	(5$^+$)				Eγ=383.28 *11*, Iγ=0.55 *8*.
		490.0	100	2119.9	5$^-$				(490.0γ)(175.2γ)(θ): R(90°/180°)=1.05 *12*. (490.0γ)(187.6γ)(θ): R(90°/180°)=1.20 *13*. (490.0γ)(390.2γ)(θ): R(90°/180°)=1.15 *5*. (490.0γ)(991.9γ)(θ): R(90°/180°)=1.12 *7*.
2693.6	(4,5$^-$)	318.8		2374.8	3$^-$				(318.8γ)(1909.8γ)(θ): R(90°/180°)=0.84 *22*.
		573.7		2119.9	5$^-$				(573.7γ)(991.9γ)(θ): R(90°/180°)=0.87 *13*. (573.7γ)(390.2γ)(θ): R(90°/180°)=1.04 *13*. Eγ=573.64 *19*, Iγ=0.20 *4*.
2718.4	7$^{(-)}$	295.2		2423.0	6$^{(-)}$				
		360.7		2357.8	(6$^-$)				Eγ=360.66 *12*, Iγ=0.26 *8*.
		598.7		2119.9	5$^-$				
2772.7	(4$^-$,6$^-$)	349.7		2423.0	6$^{(-)}$				(349.7γ)(395.6γ)(θ): R(90°/180°)=1.2 *4*.
		652.8		2119.9	5$^-$				(652.8γ)(390.2γ)(θ): R(90°/180°)=0.67 *7*. (652.8γ)(991.9γ)(θ): R(90°/180°)=0.80 *14*.
2791.8	(5$^-$)	98.2		2693.6	(4,5$^-$)				
		368.8		2423.0	6$^{(-)}$				(368.8γ)(395.6γ)(θ): R(90°/180°)=1.3 *3*.
		671.8		2119.9	5$^-$				(671.8γ)(390.2γ)(θ): R(90°/180°)=1.15 *28*. (671.8γ)(991.9γ)(θ): R(90°/180°)=0.84 *20*.
		764.4		2027.3	4$^-$				
		1664.1		1128.0	4$^+$				(1664.1γ)(663.1γ)(θ): R(90°/180°)=0.99 *23*.
2856.3	(2)$^-$	350.4	≤2	2505.8	(2)				

$^{132}_{56}Ba_{76}$-9

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

γ(^{132}Ba) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†#]	E_f	J_f^π	Mult.[‡]	δ[‡]	Comments
2856.3	(2)$^-$	403.1	8 *2*	2453.4	(1$^-$)			
		787.4	4 *1*	2069.0	3$^-$			(787.4γ)(1604.0γ)(θ): R(90°/180°)=0.55 *16*. Eγ=787.4 *3*, Iγ=0.032 *10*.
		1170.1	≤5	1686.2	2$^+$			Eγ=1169.83 *19*, Iγ=0.081 *18*.
		1824.1	67 *7*	1032.1	2$^+$			(1824.1γ)(1031.7γ)(θ): R(90°/180°)=0.81 *8*. Eγ=1824.08 *4*, Iγ=0.72 *5*.
		2391.4	100	464.83	2$^+$			(2391.4γ)(464.5γ)(θ): R(90°/180°)=0.73 *4*. Eγ=2391.35 *6*, Iγ=1.27 *9*.
2876.9	(1$^+$)	423.6	13 *3*	2453.4	(1$^-$)			(423.6γ)(2453.0γ)(θ): R(90°/180°)=2.1 *7*. Eγ=422.77 *22*, Iγ=0.067 *21*.
		1190.6	≤10	1686.2	2$^+$			(1190.6γ)(1221.2γ)(θ): R(90°/180°)=0.82 *17*. Eγ=1191.83 *13*, Iγ=0.142 *21*.
		1372.7	13 *3*	1504.0	0$^+$			(1372.7γ)(472.0γ)(θ): R(90°/180°)=0.86 *27*.
		1844.9	23 *3*	1032.1	2$^+$	D(+Q)	+0.02 *13*	(1844.9γ)(1031.7γ)(θ): R(90°/180°)=1.9 *4*. Eγ=1844.83 *9*, Iγ=0.188 *19*.
		2412.1	100	464.83	2$^+$	D+Q	−0.05 *2*	(2412.1γ)(464.5γ)(θ): R(90°/180°)=1.52 *13*. Eγ=2411.927, Iγ=0.61.
		2877.0	10 *3*	0.0	0$^+$			
2928.2	(3$^-$)	360.4		2567.7	(3)$^-$			Eγ=360.66 *12*, Iγ=0.26 *8*.
		475.0		2453.4	(1$^-$)			(475.0γ)(2453.0γ)(θ): R(90°/180°)=1.1 *4*. Eγ=474.65 *13*, Iγ=0.117 *22*.
		553.4		2374.8	3$^-$			Eγ=553.43 *4*, Iγ=0.265 *23*.
		808.2		2119.9	5$^-$			Eγ=808.29 *6*, Iγ=0.145 *15*.
		859.3		2069.0	3$^-$	(M1+E2)		−1.84≤δ≤+0.3. Eγ=859.31 *4*, Iγ=0.35 *3*.
		929.7		1998.5	2$^+$			(929.7γ)(1533.6γ)(θ): R(90°/180°)=1.22 *17*. (929.7γ)(1998.3γ)(θ): R(90°/180°)=0.87 *19*. Eγ=929.68 *5*, Iγ=0.260 *21*.
		1198.4		1729.8	4$^+$			Eγ=1198.67 *10*, Iγ=0.149 *20*.
		1242.1		1686.2	2$^+$			Eγ=1242.06 *5*, Iγ=0.265 *19*.
		1416.7		1511.4	3$^+$			Eγ=1416.91 *15*, Iγ=0.066 *14*.
		1800.2		1128.0	4$^+$			(1800.2γ)(663.1γ)(θ): R(90°/180°)=1.24 *12*. Eγ=1800.34 *7*, Iγ=0.35 *3*.
		2463.5		464.83	2$^+$			(2453.5γ)(464.5γ)(θ): R(90°/180°)=1.19 *7*. Eγ=2463.22 *5*, Iγ=1.15 *7*.
2946.6	(5$^-$)	453.9		2492.7	(4$^+$)			
		523.7		2423.0	6$^{(-)}$			(523.7γ)(303.0γ)(θ): R(90°/180°)=0.29 *4*. (523.7γ)(395.6γ)(θ): R(90°/180°)=1.7 *5*.
		588.7		2357.8	(6$^-$)			(588.7γ)(237.9γ)(θ): R(90°/180°)=0.41 *4*. (588.7γ)(330.5γ)(θ): R(90°/180°)=1.2 *4*. Eγ=588.1 *3*, Iγ=0.046 *19*.
2981.4	(1,2$^+$)	542.0		2439.3	(2$^+$ to 6$^+$)			
		1295.3		1686.2	2$^+$			Eγ=1295.7 *3*, Iγ=0.037 *12*.

$^{132}_{56}Ba_{76}$-10

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

γ(^{132}Ba) (continued)

E_i(level)	J_i^π	E_γ [†]	E_f	J_f^π	Comments
2981.4	(1,2$^+$)	1477.3	1504.0	0$^+$	
2982.1		2517.2	464.83	2$^+$	Eγ=2516.80 *17*, Iγ=0.12 *3*.
3018.8	(6$^-$)	246.2	2772.7	(4$^-$,6$^-$)	
		408.9	2609.9	(5$^-$)	(408.9γ)(252.0γ)(θ): R(90°/180°)=2.2 *9*. (408.9γ)(490.0γ)(θ): R(90°/180°)=1.5 *3*.
		535.6	2483.3	(7$^-$)	(535.6γ)(363.3γ)(θ): R(90°/180°)=0.52 *11*. Eγ=534.6 *3*, Iγ=0.11 *3*.
3021.7	(1,2$^+$,3)	1335.5	1686.2	2$^+$	Eγ=1335.95 *24*, Iγ=0.050 *12*.
		2556.9	464.83	2$^+$	(2556.9γ)(464.5γ)(θ): R(90°/180°)=1.27 *13*. Eγ=2556.65 *7*, Iγ=0.38 *3*.
3069.2	(1$^+$,2$^+$,3,4$^+$)	848.70	2220.5	(3$^-$)	Eγ=847.4 *3*, Iγ=0.039 *13*.
		1382.9	1686.2	2$^+$	
		2604.4	464.83	2$^+$	(2604.4γ)(464.5γ)(θ): R(90°/180°)=1.05 *15*. Eγ=2604.43 *16*, Iγ=0.135 *17*.
3083.3		2618.4	464.83	2$^+$	
3158.7	(1)$^-$	1472.5	1686.2	2$^+$	
		1498.0	1660.7	0$^+$	
		2693.9	464.83	2$^+$	Eγ=2693.36 *7*, Iγ=0.51 *3*.
3196.8		2731.9	464.83	2$^+$	
3217.5		1272.8	1944.7	(4$^+$)	
3219.7	(2$^+$)	342.7	2876.9	(1$^+$)	(342.7γ)(2412.1γ)(θ): R(90°/180°)=0.38 *14*.
		766.3	2453.4	(1$^-$)	(766.3γ)(2453.0γ)(θ): R(90°/180°)=0.34 *12*. Eγ=767.7 *4*, Iγ=0.034 *22*.
		1150.7	2069.0	3$^-$	(1150.7γ)(1604.0γ)(θ): R(90°/180°)=0.73 *12*. Eγ=1149.91 *15*, Iγ=0.12 *3*.
		1172.9	2046.8	(2$^+$)	Eγ=1173.12 *8*, Iγ=0.158 *19*.
		1533.7	1686.2	2$^+$	(1533.7γ)(1533.6γ)(θ): R(90°/180°)=0.57 *15*. Eγ=1533.66 *4*, Iγ=1.94 *12*.
		2187.6	1032.1	2$^+$	(2187.6γ)(1031.7γ)(θ): R(90°/180°)=0.66 *14*. Eγ=2187.55 *10*, Iγ=0.197 *25*.
		2755.1	464.83	2$^+$	(2755.1γ)(464.5γ)(θ): R(90°/180°)=0.80 *5*. Eγ=2754.73 *5*, Iγ=2.10 *13*.
3229.7	(6$^+$)	437.9	2791.8	(5$^-$)	
		737.0	2492.7	(4$^+$)	
		746.5	2483.3	(7$^-$)	
3327.4	(4,5$^-$)	834.6	2492.7	(4$^+$)	
		888.0	2439.3	(2$^+$ to 6$^+$)	Eγ=887.75 *15*, Iγ=0.122.
		1207.7	2119.9	5$^-$	Eγ=1208.5 *6*, Iγ=0.30 *3*.
3336.7	(3$^-$,5$^-$)	1289.8	2046.9	(4$^+$)	
		1309.4	2027.3	4$^-$	Eγ=1309.61 *14*, Iγ=0.25 *4*.
3363.63	(1,2$^+$)	1859.9	1504.0	0$^+$	Eγ=1860.3 *3*, Iγ=0.065 *20*.
		3363.58[&b] *14*	0.0	0$^+$	Iγ=0.228 *20*.
3381.8		1695.5	1686.2	2$^+$	

$^{132}_{56}Ba_{76}$-11

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

γ(^{132}Ba) (continued)

E_i(level)	J_i^π	E_γ[†]	E_f	J_f^π	Mult.[‡]	δ[‡]	Comments
3381.8		2917.1	464.83	2^+			Eγ=2916.1 *4*, Iγ=0.048 *14*.
3424.2	$(3)^-$	856.5	2567.7	$(3)^-$			Eγ=856.41 *8*, Iγ=0.131 *21*.
		918.3	2505.8	(2)			Eγ=918.68 *9*, Iγ=0.26 *3*.
		931.7	2492.7	(4^+)			
		1355.1	2069.0	3^-			Eγ=1355.04 *9*, Iγ=0.118 *16*.
		1396.8	2027.3	4^-			Eγ=1396.99 *6*, Iγ=0.242 *23*.
		1738.0	1686.2	2^+			Eγ=1737.99 *16*, Iγ=0.094 *19*.
		2296.2	1128.0	4^+			Eγ=2296.18 *10*, Iγ=0.167 *17*.
		2959.7	464.83	2^+	E1(+M2)	−0.02 *3*	Eγ=2959.49 *9*, Iγ=1.24 *9*.
3434.8		995.5	2439.3	$(2^+$ to $6^+)$			Eγ=994.40 *6*, Iγ=0.22 *2*.
		1365.8	2069.0	3^-			
		1436.1	1998.5	2^+			
3461.5	$(1,2^+)$	1775.2	1686.2	2^+			
		1957.5	1504.0	0^+			
		3461.5[&b] *5*	0.0	0^+			Iγ=0.016 *6*.
3495.4	$(3,4^+)$	1809.4	1686.2	2^+			
		1983.9	1511.4	3^+			Eγ=1984.0 *3*, Iγ=0.051 *13*.
		2367.2	1128.0	4^+			Eγ=2367.08 *7*, Iγ=0.286 *23*.
		2463.2	1032.1	2^+			Eγ=2463.22 *8*, Iγ=1.15 *7*.
		3030.8	464.83	2^+			Eγ=3030.80 *10*, Iγ=0.205 *17*.
3527.7		3062.1	464.83	2^+			Eγ=3062.2 *3*, Iγ=0.047 *11*.
		3527.8[&b] *5*	0.0	0^+			Iγ=0.014 *4*.
3562.2		685.3	2876.9	(1^+)			
		994.5	2567.7	$(3)^-$			Eγ=994.40 *6*, Iγ=0.23 *3*.
		1187.4	2374.8	3^-			
3562.8	$(1,2^+)$	1109.2	2453.4	(1^-)			Eγ=1110.4 *3*, Iγ=0.069 *21*.
		1493.7	2069.0	3^-			
		1516.2	2046.8	(2^+)			Eγ=1516.6 *3*, Iγ≥0.050.
		1564.3	1998.5	2^+			Eγ=1565.4 *3*, Iγ=0.065 *25*.
		1876.8	1686.2	2^+			Eγ=1876.67 *9*, Iγ=0.32 *3*.
		2058.7	1504.0	0^+			Eγ=2058.9 *4*, Iγ=0.035 *12*.
3563.22	$(1,2^+)$	1902.9	1660.7	0^+			
		3098.8	464.83	2^+			Eγ=3098.45 *7*, Iγ=0.64 *4*.
		3563.12 *23*	0.0	0^+			E_γ: from 1975WiZJ only. Iγ=0.046 *6*.
3591.7		1138.5	2453.4	(1^-)			Eγ=1138.9 *4*, Iγ=0.028 *11*.
		1522.6	2069.0	3^-			Eγ=1522.6 *3*, Iγ=0.045 *15*. Additional information 3.
3607.9	$(1,2^+)$	731.0	2876.9	(1^+)			Eγ=731.04 *20*, Iγ=0.027 *9*.
		1102.0	2505.8	(2)			Eγ=1102.20 *10*, Iγ=0.095 *15*.
		1921.7	1686.2	2^+			Eγ=1921.44 *9*, Iγ=0.70 *5*.
		1947.1	1660.7	0^+			
		2103.8	1504.0	0^+			Eγ=2102.84 *5*, Iγ=7.7 *5*.

$^{132}_{56}Ba_{76}$-12

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

γ(^{132}Ba) (continued)

E_i(level)	J_i^π	E_γ[†]	E_f	J_f^π	Mult.[‡]	δ[‡]	Comments
3607.9	(1,2$^+$)	2575.9	1032.1	2$^+$			Eγ=2576.32 *9*, Iγ=0.222 *22*.
3608.08		3143.6	464.83	2$^+$			Eγ=3143.23 *15*, Iγ=0.092 *12*.
		3608.02[&b] *17*	0.0	0$^+$			Iγ=0.151 *12*.
3617.7		3152.8	464.83	2$^+$			Eγ=3151.9 *2*, Iγ=0.079 *11*.
3635.64	1$^-$	1949.5	1686.2	2$^+$			Eγ=1948.70 *10*, Iγ=0.19 *3*.
		1974.5	1660.7	0$^+$			
		2131.2	1504.0	0$^+$			Eγ=2131.84 *19*, Iγ=0.14 *3*.
		3171.2	464.83	2$^+$	(E1(+M2))	−0.01 *4*	Eγ=3170.62 *9*, Iγ=0.36 *3*.
		3635.60 *19*	0.0	0$^+$			E_γ: from 1975WiZJ only. Iγ=0.044 *4*.
3664.7	(1$^-$,2$^-$,3$^-$)	1096.4	2567.7	(3)$^-$			Eγ=1096.15 *24*, Iγ=0.042 *14*.
		1210.7	2453.4	(1$^-$)			Eγ=1211.11 *9*, Iγ=0.151 *20*.
		1617.3	2046.8	(2$^+$)			Eγ=1617.06 *21*, Iγ=0.067 *15*.
		1977.7	1686.2	2$^+$			Eγ=1977.31 *19*, Iγ=0.11 *19*.
		2632.2	1032.1	2$^+$			δ(E2/M1)=−0.56 *8* (2002Ga01) for J^π=1$^+$ for 3664.7 level. But 1$^+$ is inconsistent with mult=E1 for 3199.8γ from ce data. Eγ=2631.63 *7*, Iγ=0.315 *22*.
		3199.8	464.83	2$^+$			Eγ=3199.04 *7*, Iγ=0.94 *6*.
		3665.5[b] *5*	0.0	0$^+$			E_γ: level-energy difference=3663.9. E_γ: from 1975WiZJ only. Iγ=0.017 *4*.
3672.5		1603.5	2069.0	3$^-$			Eγ=1604.03 *3*, Iγ=4.8 *3*.
		3207.7	464.83	2$^+$			Eγ=3207.15 *18*, Iγ=0.096 *13*.
3717.0		840.2	2876.9	(1$^+$)			
		1149.2	2567.7	(3)$^-$			Eγ=1149.91 *15*, Iγ=0.12 *3*.
		1211.2	2505.8	(2)			Eγ=1211.11 *9*, Iγ=0.151 *20*.
		1428.5	2288.4	(2$^+$,3,4$^+$)			Eγ=1428.2 *4*, Iγ=0.037 *16*.
		1647.9	2069.0	3$^-$			Eγ=1647.98 *8*, Iγ=0.206 *18*.
		2030.7	1686.2	2$^+$			Eγ=2030.4 *3*, Iγ=0.042 *10*.
3718.5		2685.7	1032.1	2$^+$			Eγ=2685.54 *21*, Iγ=0.086 *14*.
		3253.0	464.83	2$^+$			Eγ=3252.1 *12*, Iγ=0.154 *14*.
		3718.7[&b] *4*	0.0	0$^+$			Iγ=0.014 *3*.
3734.5	(2$^+$,3,4$^+$)	1665.4	2069.0	3$^-$			
		2048.4	1686.2	2$^+$			Eγ=2049.7 *4*, Iγ=0.09 *3*.
		2606.6	1128.0	4$^+$			
3735.8		3270.9	464.83	2$^+$			Eγ=3269.89 *16*, Iγ=0.151 *16*.
3753.8	(2,3$^-$)	877.1	2876.9	(1$^+$)			
		1300.6	2453.4	(1$^-$)			Eγ=1300.57 *25*, Iγ=0.040 *11*.
		1684.6	2069.0	3$^-$			Eγ=1684.81 *16*, Iγ=0.19 *3*.
		1755.2	1998.5	2$^+$			Eγ=1755.51 *7*, Iγ=0.30 *3*.
		2242.4	1511.4	3$^+$			Eγ=2242.46 *22*, Iγ=0.118 *21*.
3768.6	(2,3)	1699.5	2069.0	3$^-$			Eγ=1699.37 *17*, Iγ=0.065 *13*.
		2082.5	1686.2	2$^+$			Eγ=2082.39 *11*, Iγ=0.149 *16*.

$^{132}_{56}Ba_{76}$-13

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

γ(^{132}Ba) (continued)

E_i(level)	J_i^π	E_γ †	E_f	J_f^π	Comments
3768.6	(2,3)	2257.2	1511.4	3^+	Eγ=2257.0 *6*, Iγ=0.022 *11*. Additional information 4.
3769.5		3304.6	464.83	2^+	Eγ=3303.48 *16*, Iγ=0.102 *11*.
3773.7	$(1,2^+)$	2087.0	1686.2	2^+	Eγ=2089.1 *3*, Iγ=0.041 *12*.
		2112.9	1660.7	0^+	
		2270.3	1504.0	0^+	E_γ: level-energy difference=2269.7. Eγ=2269.7 *6*, Iγ=0.021 *10*. Additional information 5.
3775.84	(2^+)	919.7	2856.3	$(2)^-$	Eγ=918.68 *10*, Iγ=0.26 *3*.
		1208.3	2567.7	$(3)^-$	Eγ=1208.48 *6*, Iγ=0.30 *3*.
		1487.6	2288.4	$(2^+,3,4^+)$	
		1555.5	2220.5	(3^-)	Eγ=1555.59 *15*, Iγ=0.104 *21*.
		1707.0	2069.0	3^-	Eγ=1706.47 *17*, Iγ=0.115 *16*.
		2265.0	1511.4	3^+	Eγ=2264.6 *4*, Iγ=0.037 *10*.
		2744.4	1032.1	2^+	Eγ=2743.83 *10*, Iγ=0.199 *18*.
		3311.1	464.83	2^+	Eγ=3309.82 *16*, Iγ=0.087 *9*.
		3775.6 *3*	0.0	0^+	E_γ: from 1975WiZJ only. Iγ=0.064 *6*.
3788.1		3323.2	464.83	2^+	Eγ=3322.30 *19*, Iγ=0.065 *8*.
3820.6		1751.9	2069.0	3^-	
		1773.6	2046.9	(4^+)	Eγ=1773.38 *16*, Iγ=0.107 *17*.
		2134.2	1686.2	2^+	
3821.4		3356.5	464.83	2^+	Eγ=3355.41 *15*, Iγ=0.30 *3*.
3835.2	$(1,2^+)$	2148.7	1686.2	2^+	Eγ=2149.0 *3*, Iγ=0.051 *14*.
		2174.5	1660.7	0^+	
		2331.4	1504.0	0^+	
3850.1		973.1	2876.9	(1^+)	Eγ=974.8 *3*, Iγ=0.027 *9*.
		1282.1	2567.7	$(3)^-$	Eγ=1282.17 *7*, Iγ=0.152 *15*.
		1780.9	2069.0	3^-	
		2818.1	1032.1	2^+	Eγ=2817.54 *20*, Iγ=0.084 *12*.
		3385.8	464.83	2^+	Eγ=3385.08 *17*, Iγ=0.066 *8*.
3864.1		1794.9	2069.0	3^-	Eγ=1793.73 *21*, Iγ=0.084 *21*.
		2832.2	1032.1	2^+	Eγ=2831.72 *16*, Iγ=0.101 *14*.
3879.1	$(1,2^+)$	2375.1	1504.0	0^+	
3887.7	$(3,4^+)$	1818.9	2069.0	3^-	
		1860.4	2027.3	4^-	Eγ=1860.3 *3*, Iγ=0.065 *20*.
		1942.9	1944.7	(4^+)	Eγ=1941.79 *17*, Iγ=0.096 *18*.
		2201.4	1686.2	2^+	
3903.8	$(2^+,3,4^+)$	1834.7	2069.0	3^-	Eγ=1835.21 *21*, Iγ=0.081 *18*.
		2217.6	1686.2	2^+	
		2775.9	1128.0	4^+	Eγ=2775.35 *20*, Iγ=0.066 *11*.
		2871.6	1032.1	2^+	Eγ=2871.35 *9*, Iγ=0.256 *19*.
3908.0		1838.6	2069.0	3^-	Eγ=1838.9 *3*, Iγ=0.054 *18*.

$^{132}_{56}Ba_{76}$-14

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ (continued)

γ(^{132}Ba) (continued)

E_i(level)	J_i^π	E_γ †	E_f	J_f^π	Comments
3908.0		1861.6	2046.8	(2^+)	Eγ=1860.3 *3*, Iγ=0.065 *20*.
		2875.9	1032.1	2^+	Eγ=2875.67 *9*, Iγ=0.259 *19*.
3918.3	$(2^+,3,4^+)$	2231.9	1686.2	2^+	
		2790.5	1128.0	4^+	Eγ=2789.8 *5*, Iγ=0.030 *10*.
3943.7	$(0^+$ to $4^+)$	2911.6	1032.1	2^+	
3968.0	$(2^+,3,4^+)$	1399.9	2567.7	$(3)^-$	Eγ=1400.39 *16*, Iγ=0.087 *18*.
		2281.7	1686.2	2^+	Eγ=2281.4 *3*, Iγ=0.049 *14*.
		2840.3	1128.0	4^+	Eγ=2839.76 *20*, Iγ=0.092 *22*.
3974.6	$(3,4^+)$	1947.3	2027.3	4^-	
		2029.9	1944.7	(4^+)	Eγ=2030.4 *3*, Iγ=0.042 *10*.
		2288.4	1686.2	2^+	Eγ=2288.93 *21*, Iγ=0.057 *11*.
3975.5		2943.4	1032.1	2^+	Eγ=2943.2 *5*, Iγ=0.030 *10*.
4010.5		2324.3	1686.2	2^+	
4028.2	$(2^+,3,4^+)$	1959.4	2069.0	3^-	Eγ=1959.2 *4*, Iγ=0.033 *11*.
		2342.4	1686.2	2^+	Eγ=2342.4 *3*, Iγ=0.046 *12*.
		2899.4	1128.0	4^+	E_γ: level-energy difference=2900.1.
					Eγ=2899.67 *16*, Iγ=0.096 *14*.
4090.6		2962.5	1128.0	4^+	

† From 1996Ku01, unless otherwise stated. Corresponding values from 1975WiZJ, if reported, are given under comments. 1975WiZJ reported γ rays in the range 305.9-4006.4 keV. It should be pointed out that correspondence between the set of transitions reported by 1996Ku01 and 1975WiZJ is not very satisfactory. Some of the gamma rays marked as 'new' by 1996Ku01 do exist at matching energy in the tabular data of 1975WiZJ.

‡ From γγ(θ) data of 2002Ga01.

As stated by 1996Ku01, uncertainties are ≈10% when not given in authors′ table 1.

@ γ from 2002Ga01; not seen by 1996Ku01.

& From 1975WiZJ; not reported by 1996Ku01. Tentative placement As g.s. transition proposed by the evaluators.

a 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.

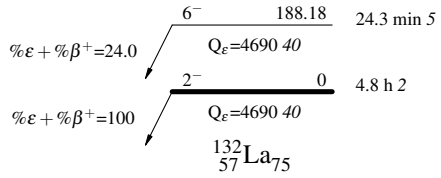
b Placement of transition in the level scheme is uncertain.

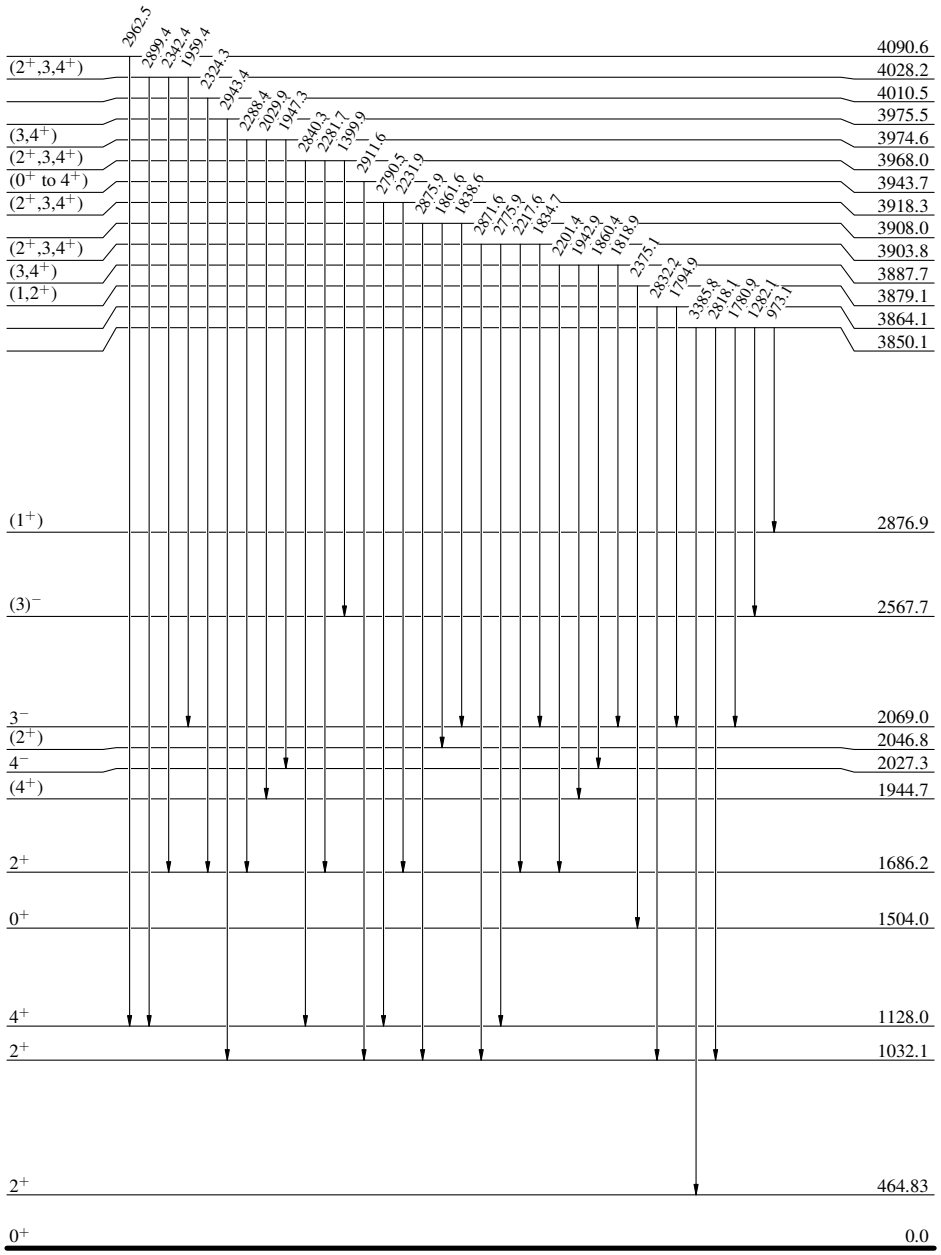
$^{132}_{56}Ba_{76}$-15

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

Decay Scheme

Intensities: Relative photon branching from each level



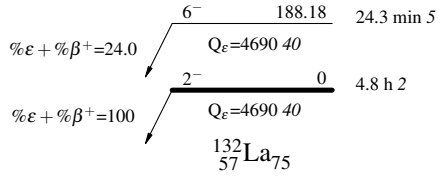


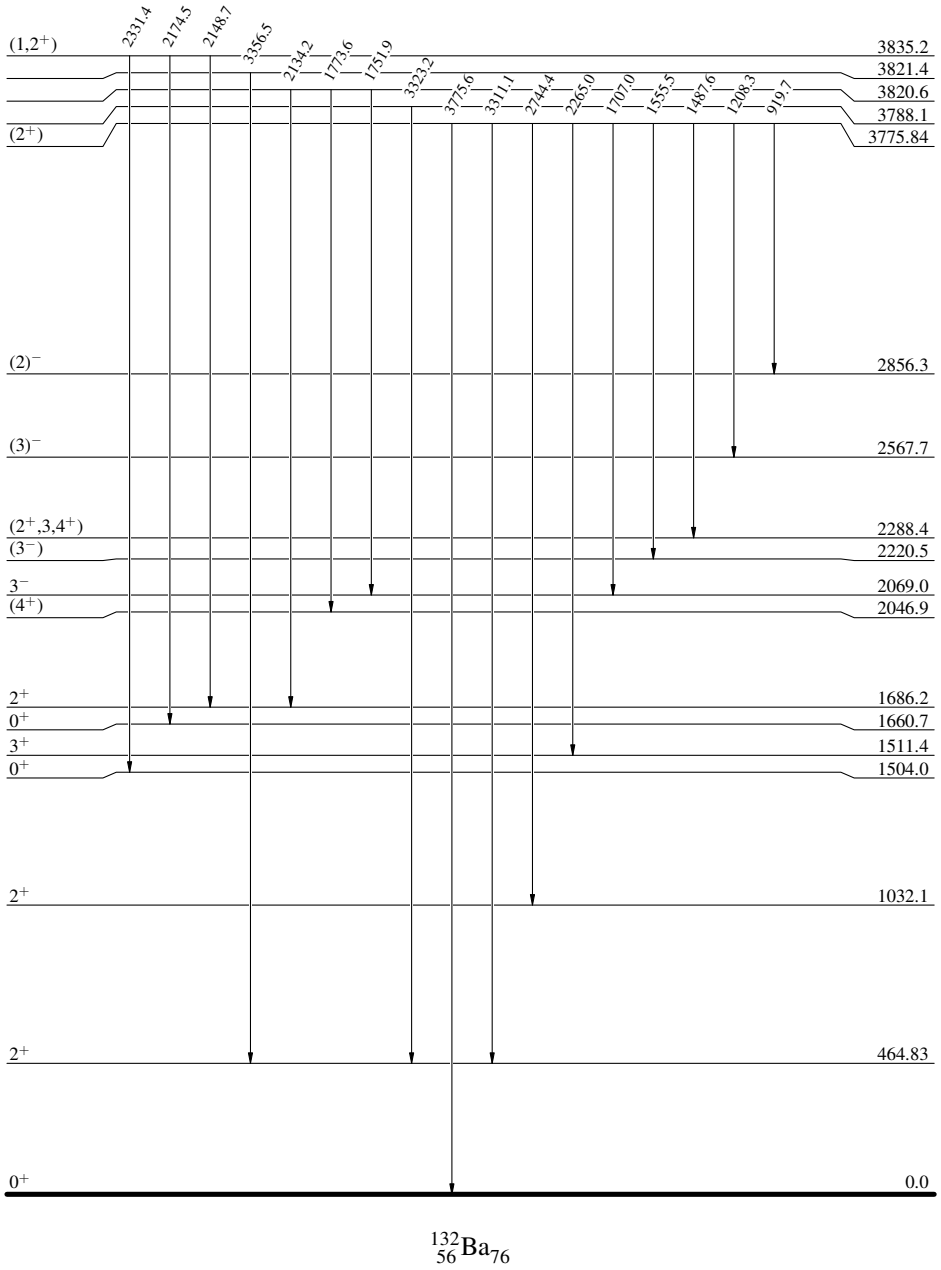
$^{132}_{56}Ba_{76}$

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

Decay Scheme (continued)

Intensities: Relative photon branching from each level



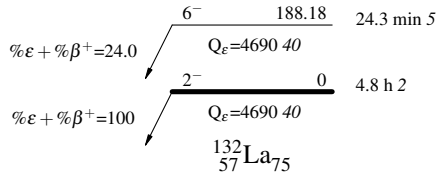


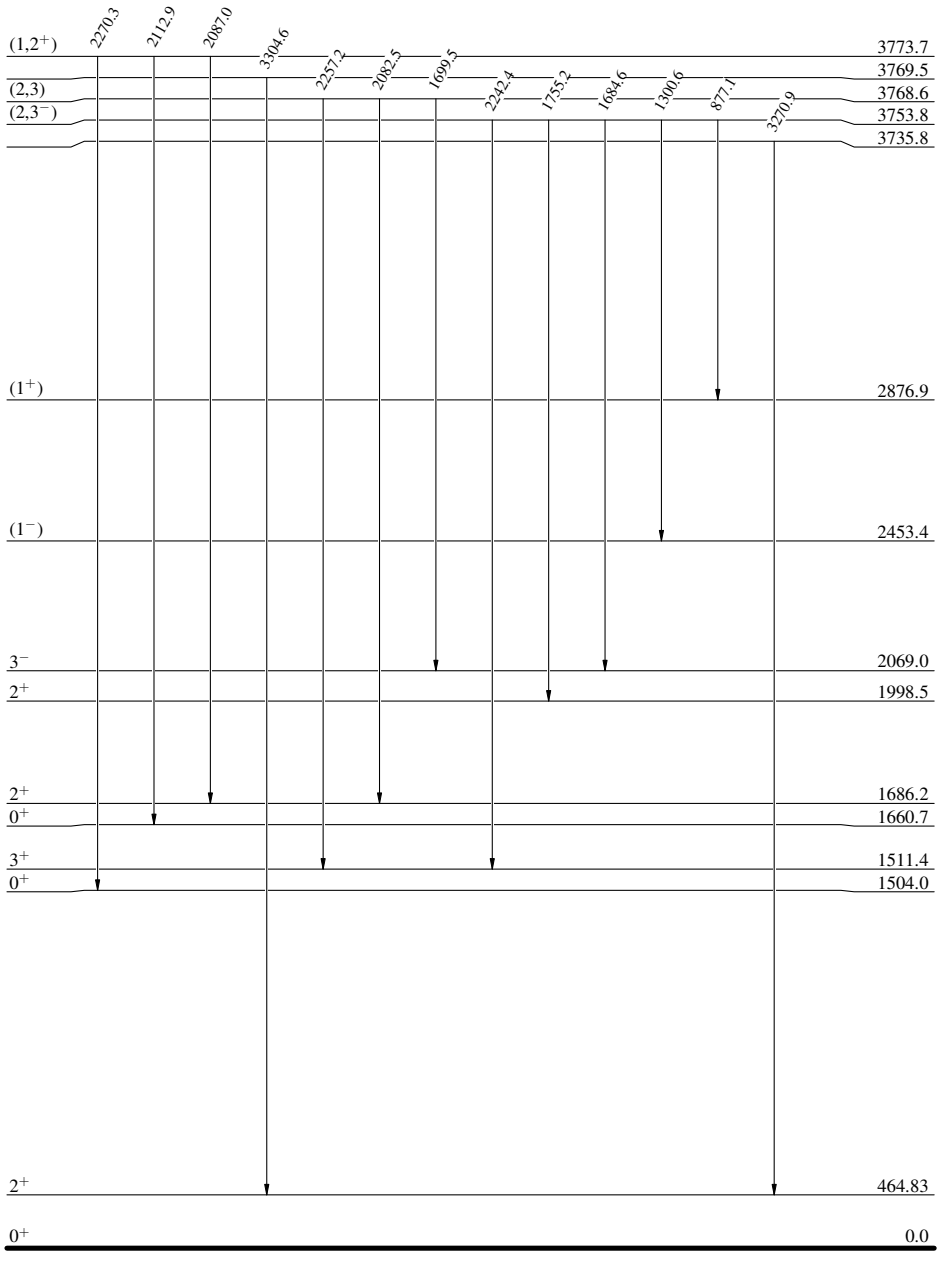
$^{132}_{56}Ba_{76}$

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

Decay Scheme (continued)

Intensities: Relative photon branching from each level





$^{132}_{56}Ba_{76}$

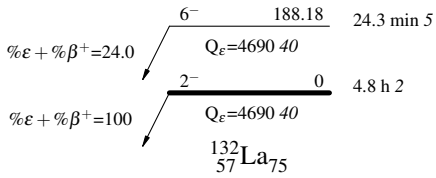
^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

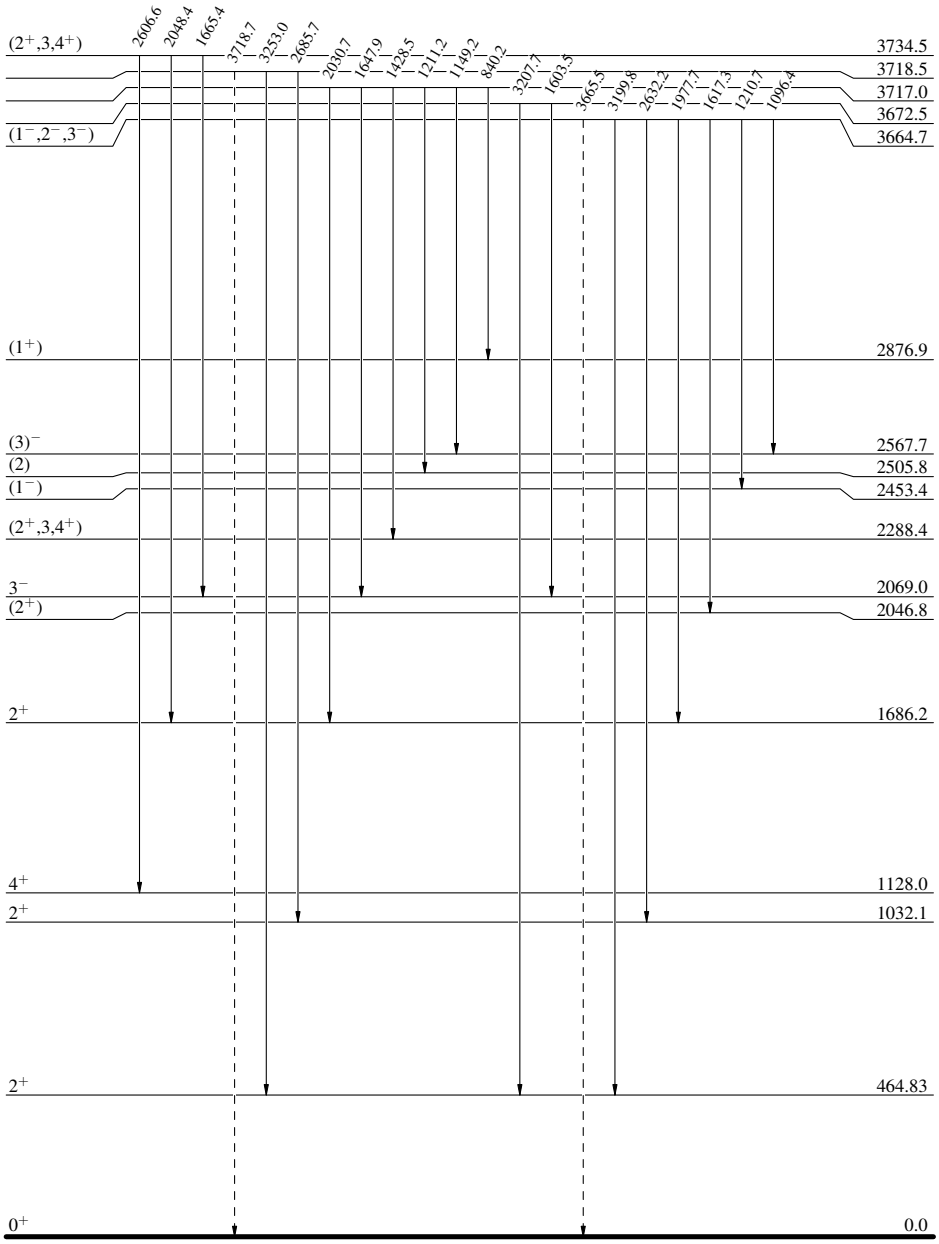
Decay Scheme (continued)

Intensities: Relative photon branching from each level

Legend

γ Decay (Uncertain)



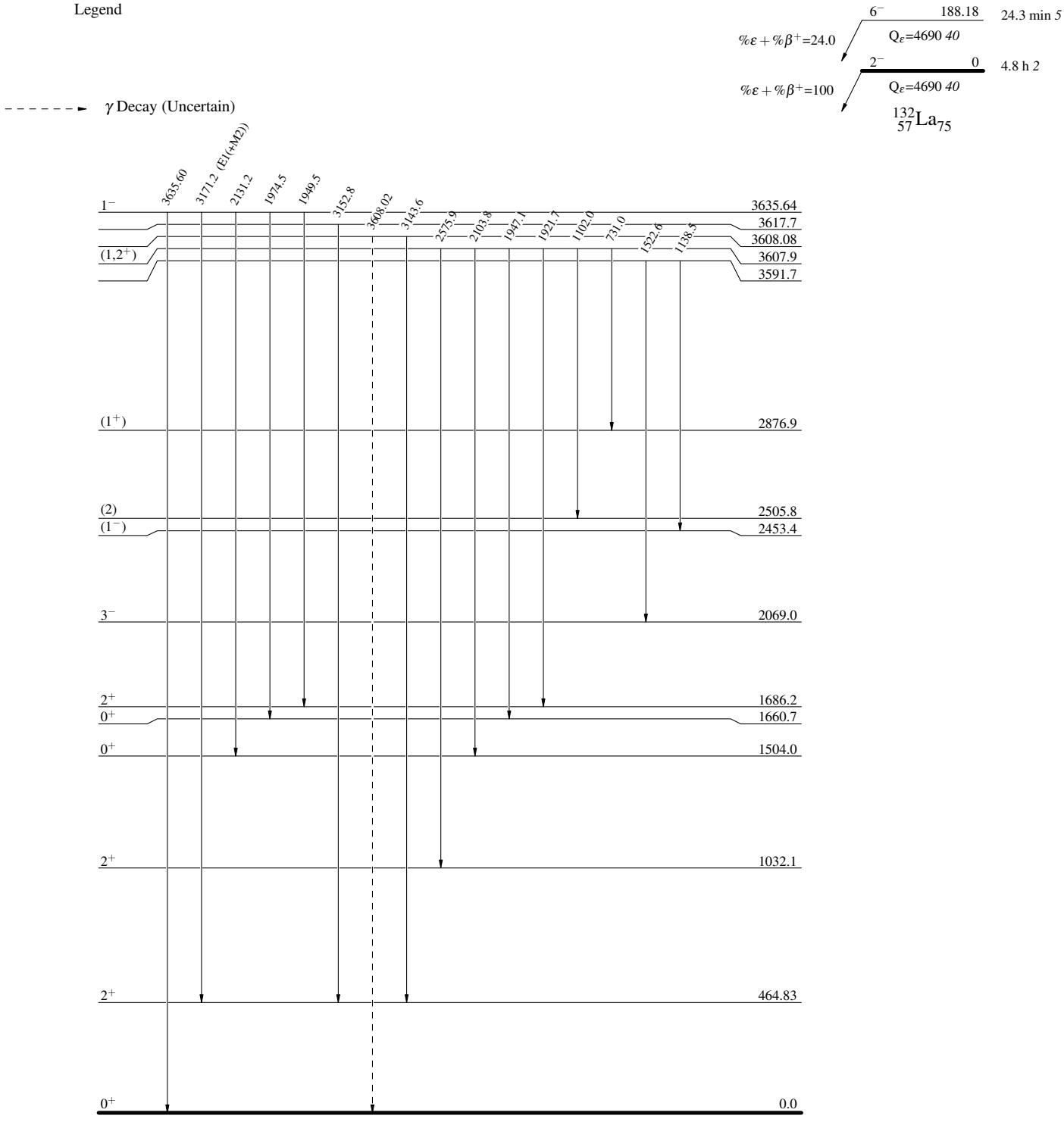


$^{132}_{56}Ba_{76}$

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

Decay Scheme (continued)

Intensities: Relative photon branching from each level



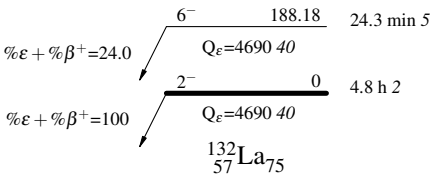
^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

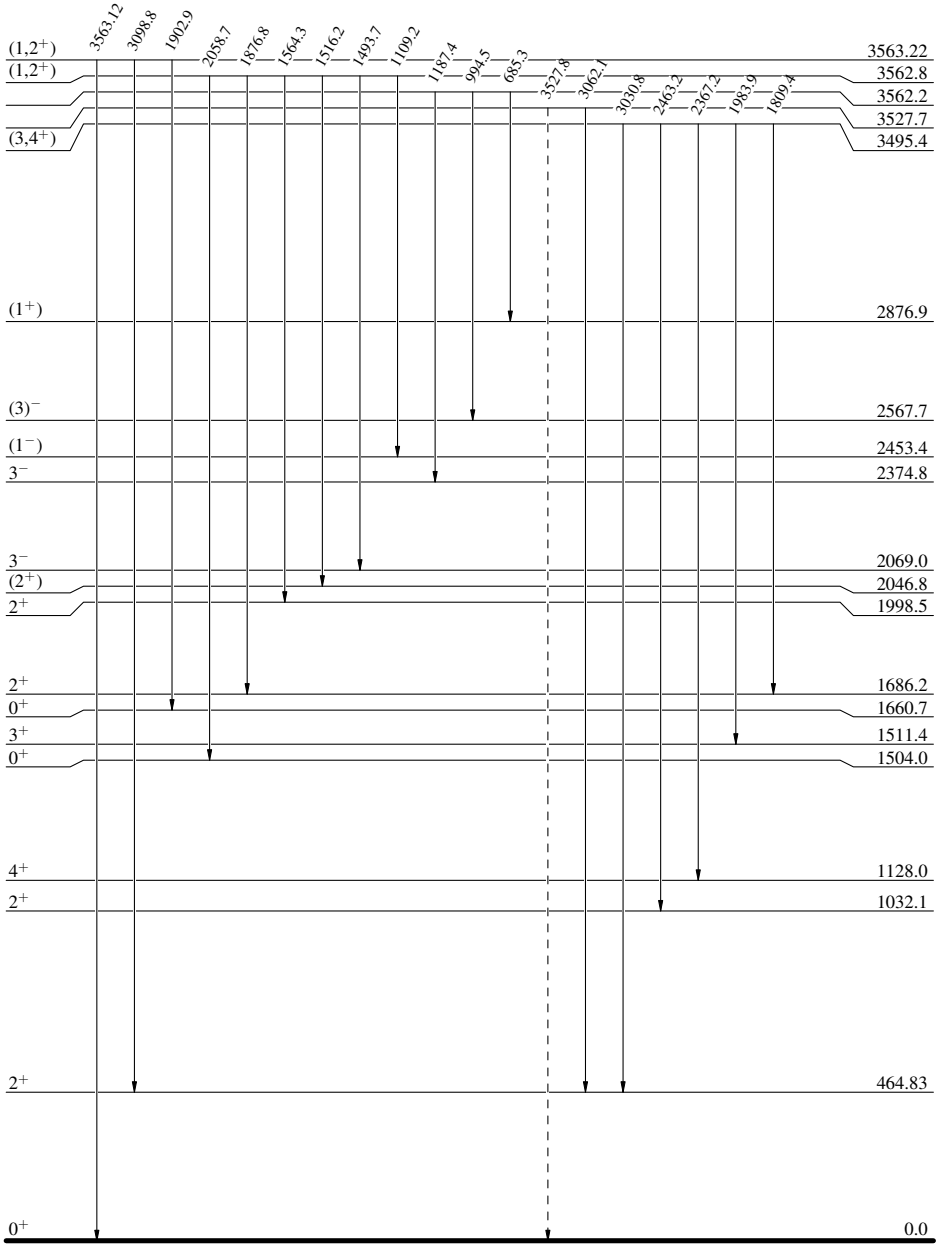
Decay Scheme (continued)

Intensities: Relative photon branching from each level

Legend

γ Decay (Uncertain)





$^{132}_{56}Ba_{76}$

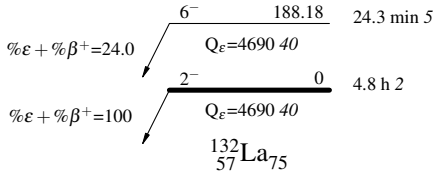
^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

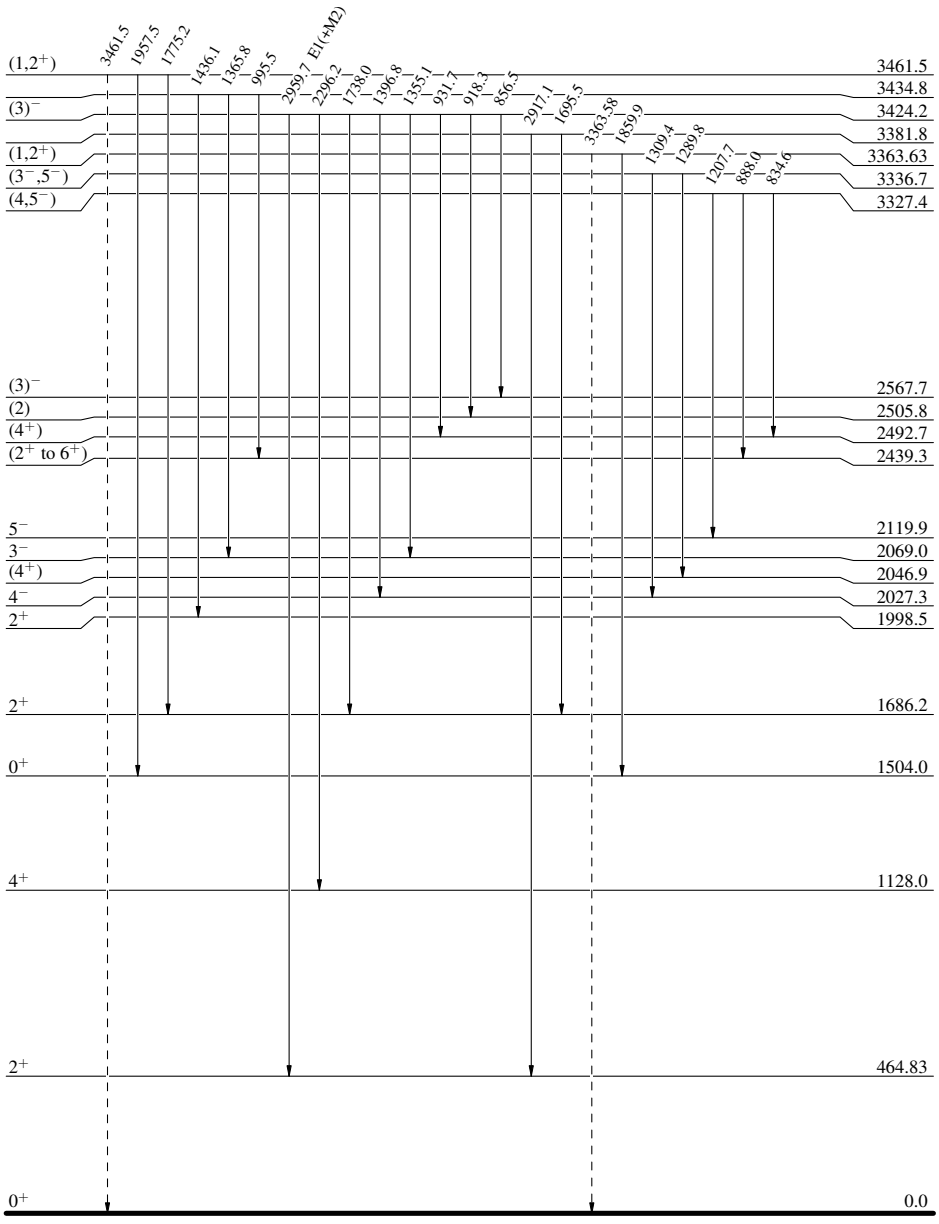
Decay Scheme (continued)

Legend

Intensities: Relative photon branching from each level

- - - - - - ► γ Decay (Uncertain)



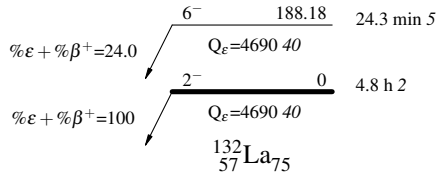


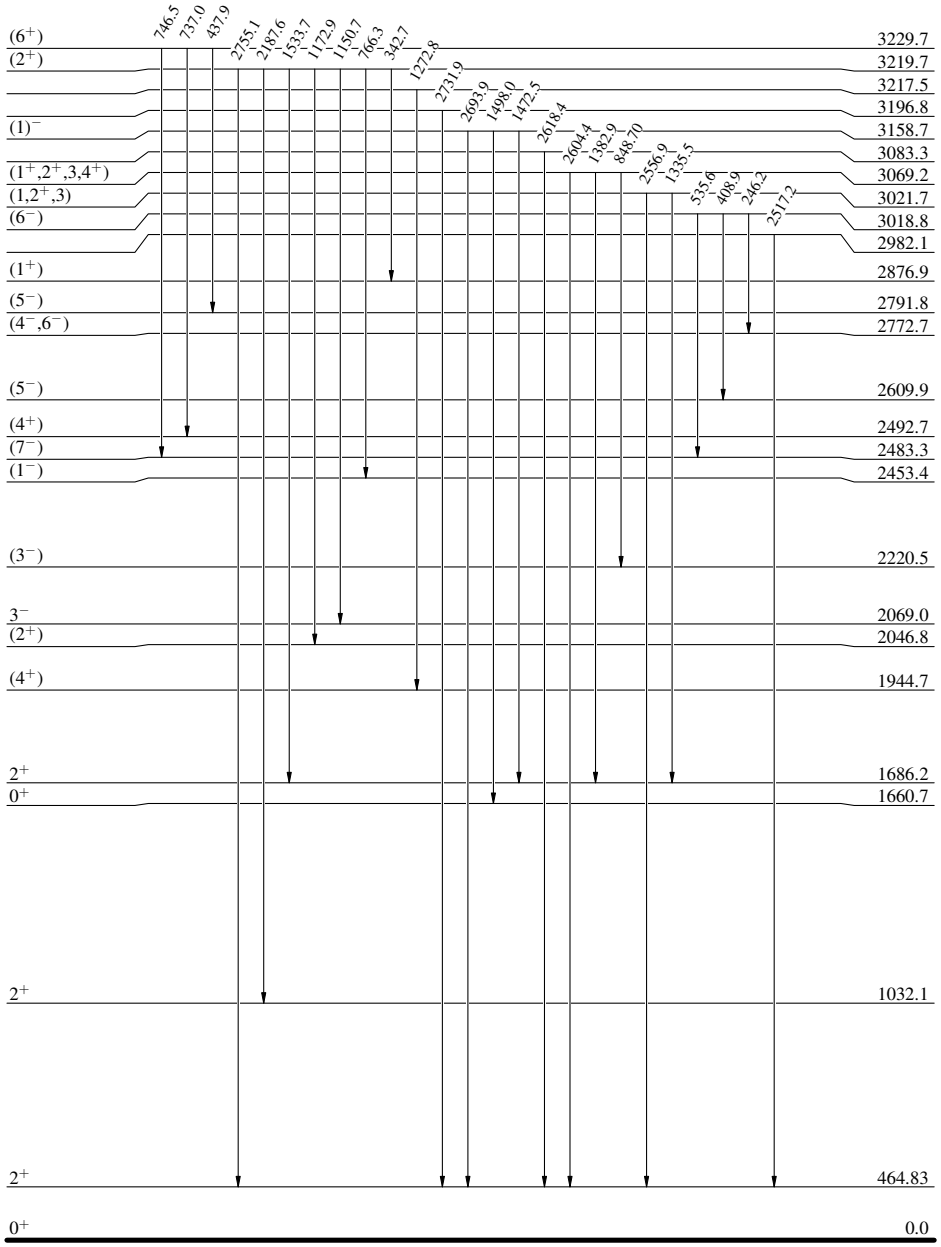
$^{132}_{56}Ba_{76}$

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

Decay Scheme (continued)

Intensities: Relative photon branching from each level



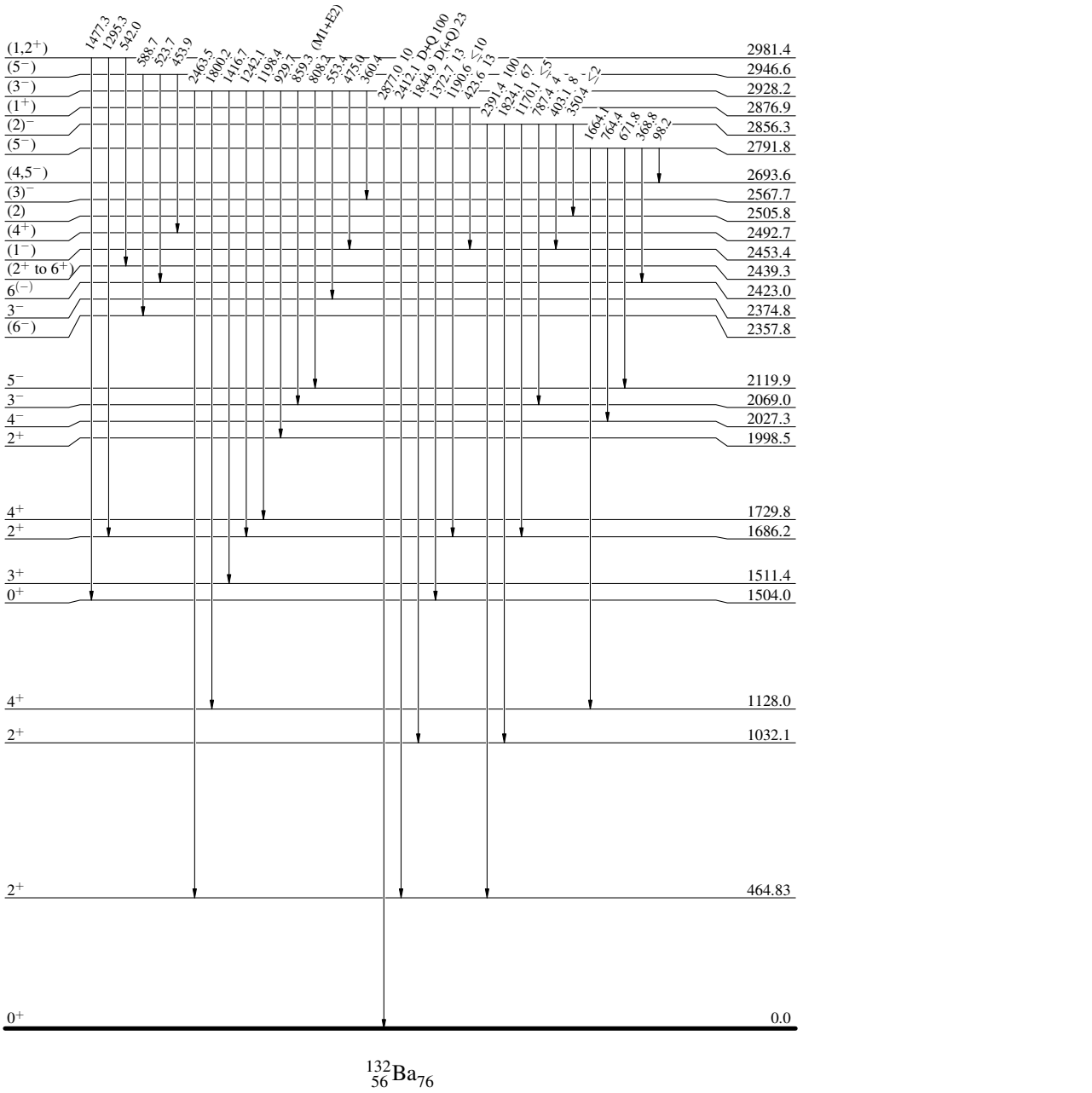


$^{132}_{56}Ba_{76}$

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

Decay Scheme (continued)

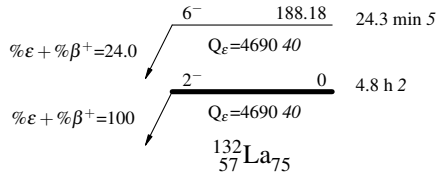
Intensities: Relative photon branching from each level

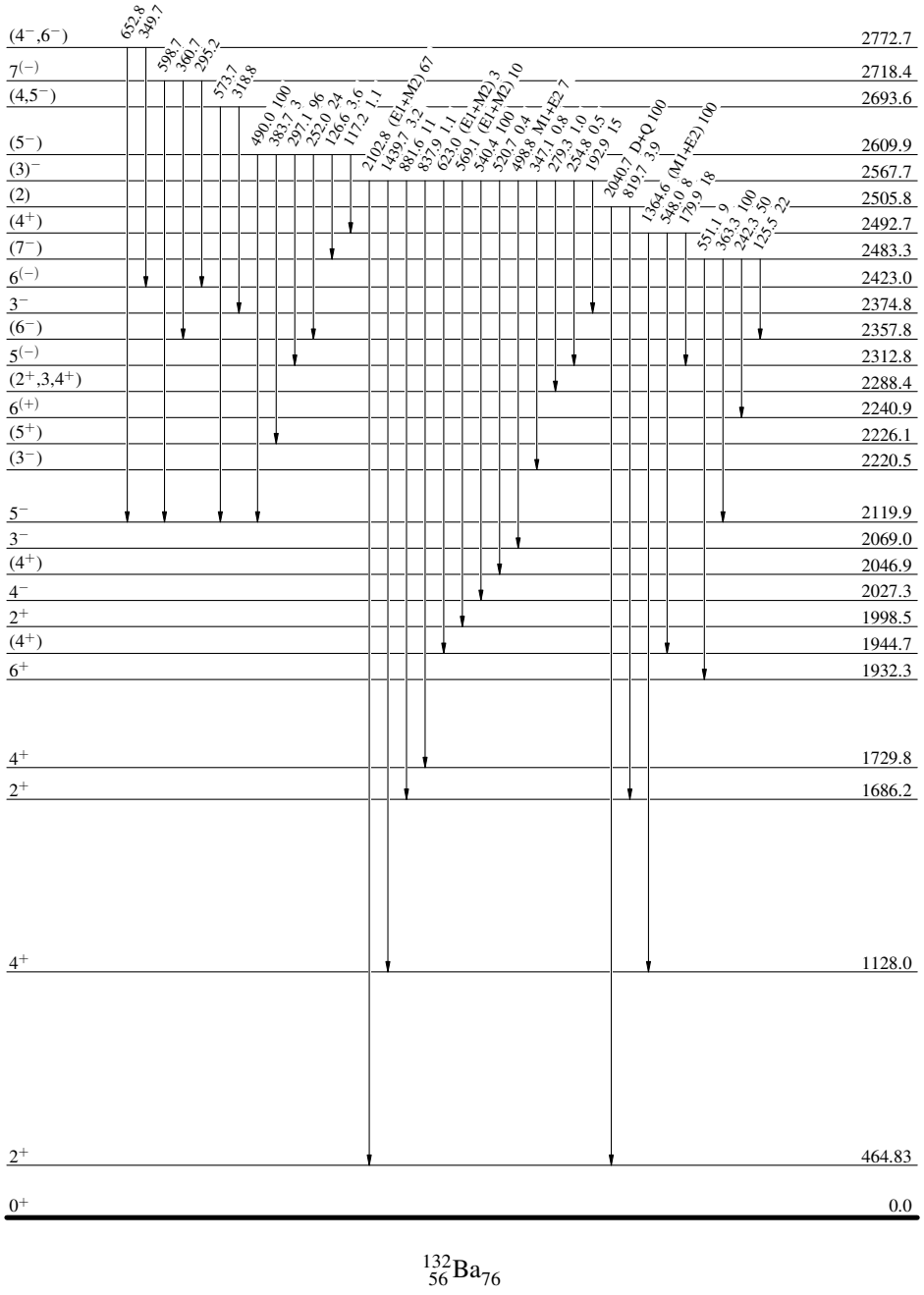


^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

Decay Scheme (continued)

Intensities: Relative photon branching from each level

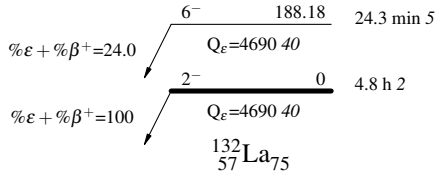


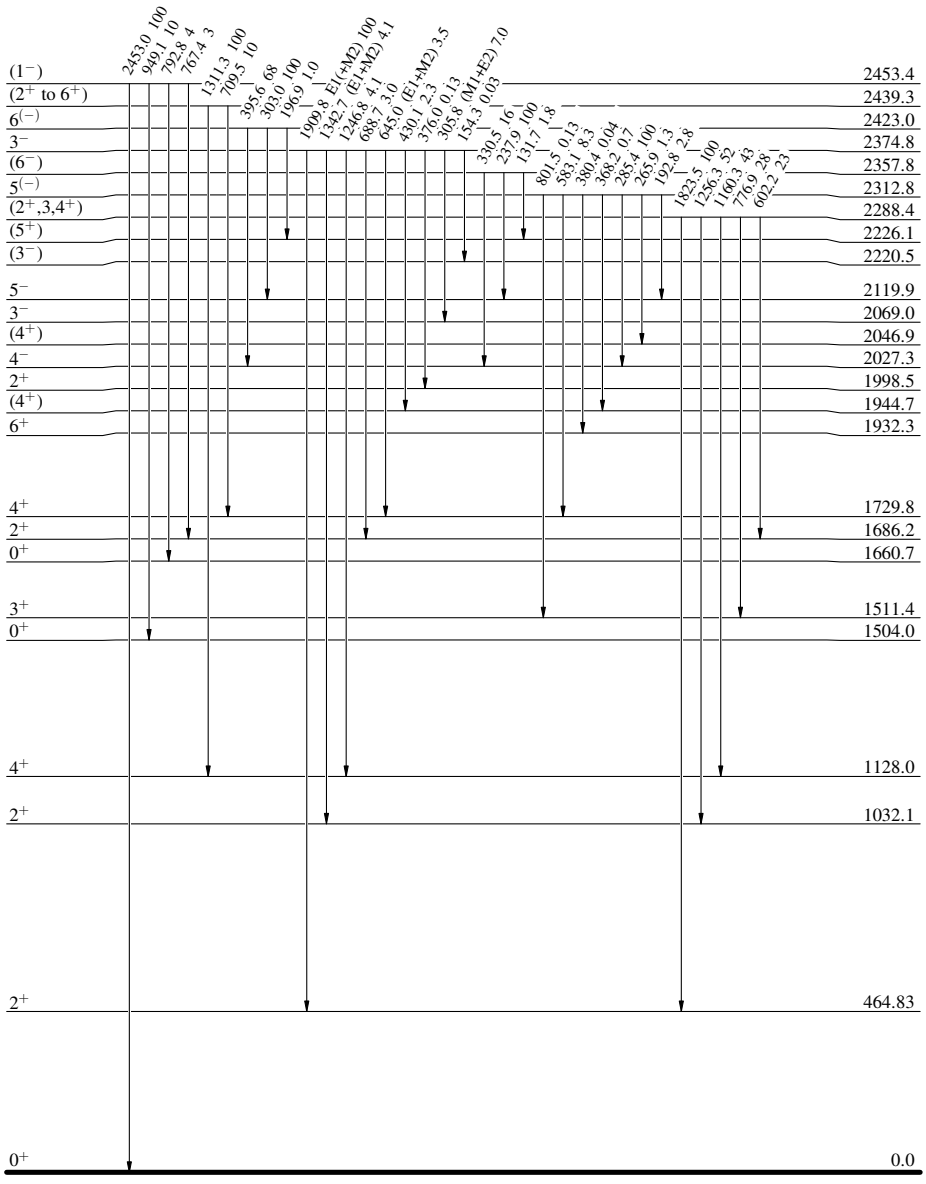


^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

Decay Scheme (continued)

Intensities: Relative photon branching from each level



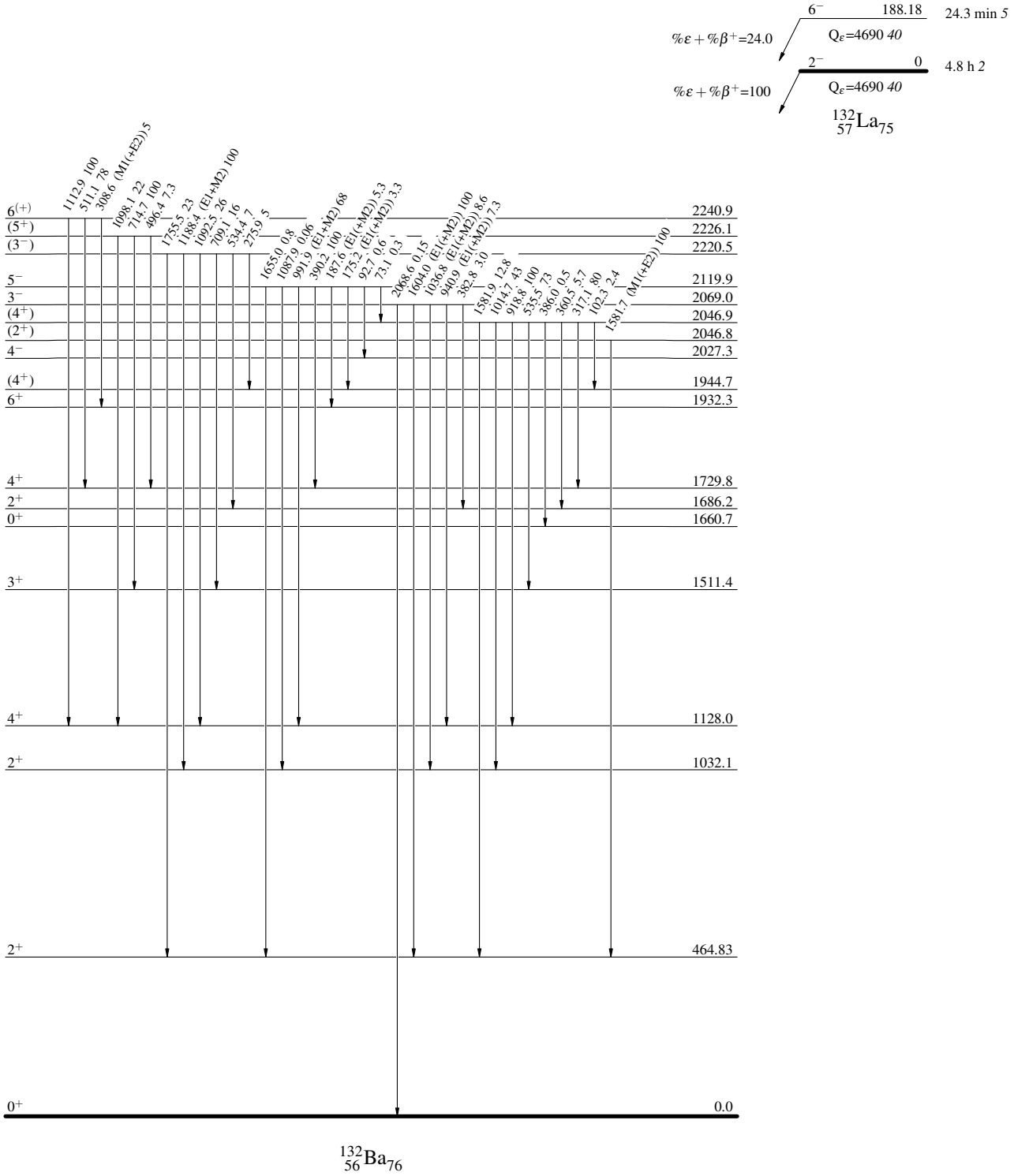


$^{132}_{56}Ba_{76}$

^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

Decay Scheme (continued)

Intensities: Relative photon branching from each level



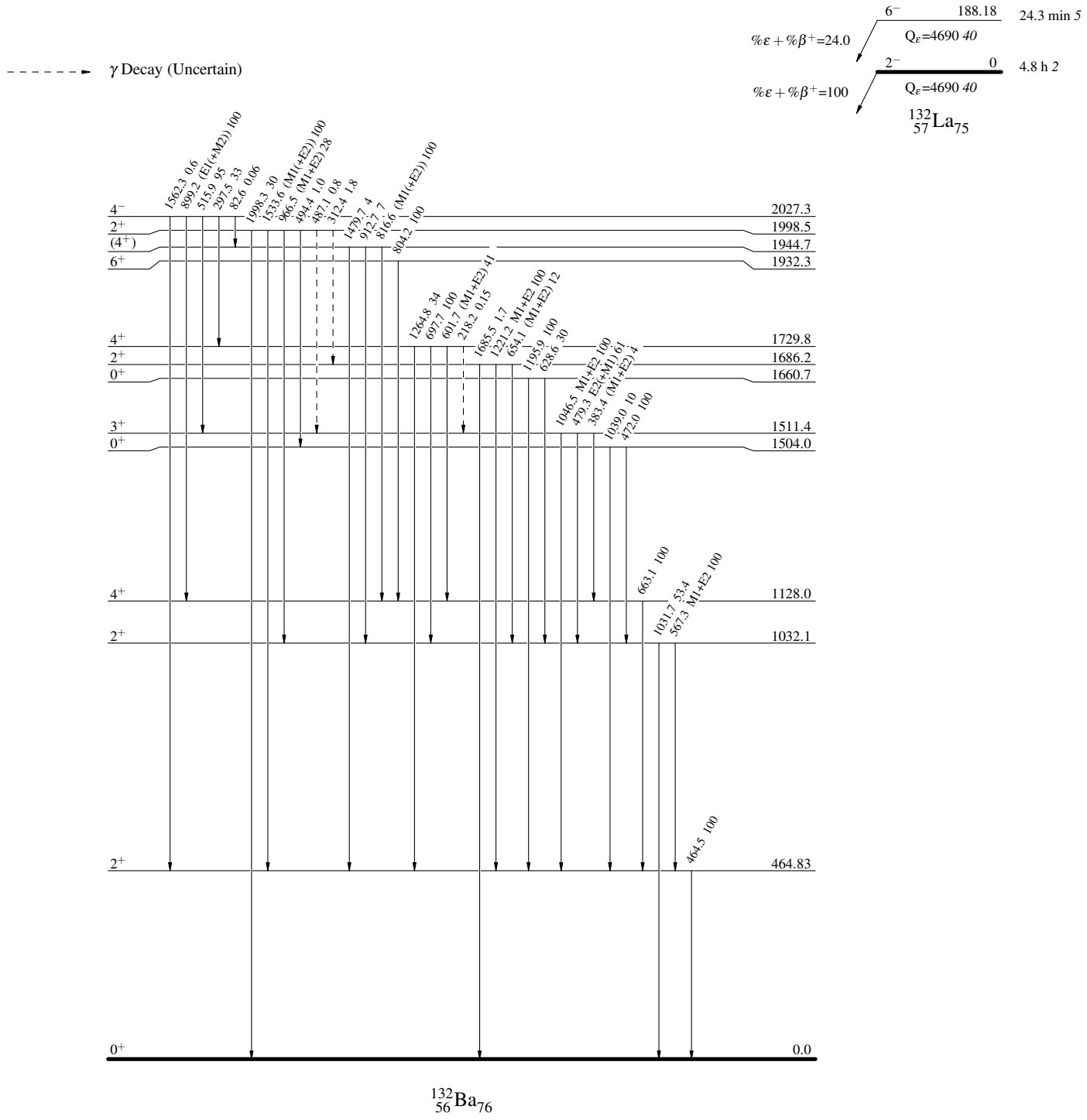
^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ

Decay Scheme (continued)

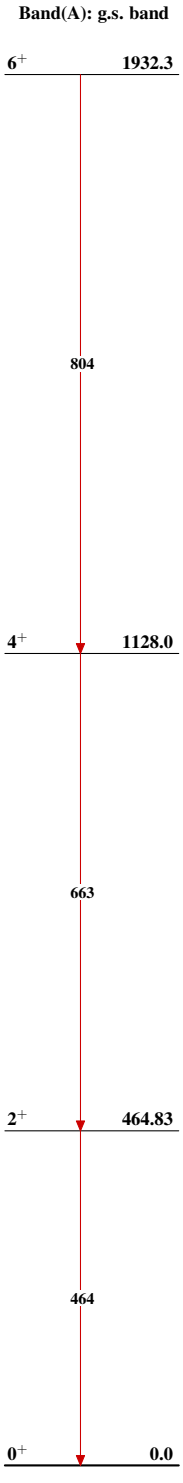
Legend

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



^{132}La ε decay (4.8 h+24.3 min) 1996Ku01,1975WiZJ



$^{132}_{56}Ba_{76}$