^{238}Am ε decay

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 127, 191 (2015)	1-Jun-2014

Parent: ^{238}Am: E=0.0; J$^{\pi}$=1^{+}; T$_{1/2}$=98 min *2*; Q(ε)=2260 *50*; %ε+%β^{+} decay=100.0

^{238}Pu Levels

E(level)	J$^{\pi}$ †	T$_{1/2}$	Comments
0.0	0^{+} ‡	87.74 y *4*	
44.11 *6*	2^{+} ‡		
145.99 *10*	4^{+} ‡		
605.13 *7*	1^{-} #		
661.38 *10*	3^{-} #		
941.50 *14*	0^{+} @		
962.85 *7*	1^{-} b		
983.09 *14*	2^{+} @		
985.53 *10*	2^{-} b		
1028.57 *13*	2^{+} c		
1174.4 *4*	(2^{+})		
1228.66 *22*	0^{+} &		
1264.21 *23*	2^{+} &		
1310.3? *3*	1^{+},2^{+}		
1426.61 *25*	0^{+} a		
1447.25 *19*	1^{-}		
1458.31 *22*	2^{+}		
1559.85 *15*	1^{-}		
1596.4 *3*	(2^{+})		
1621.29 *13*	1^{-}		
1636.42 *14*	1^{-}		
1651.2 *4*	1,2^{+}		
1726.36 *22*	1,2^{+}		
1783.6 *3*	1,2^{+}		
1898.26? *19*	2^{-}		E(level): proposed by the evaluators based on energy fit of three transitions.

† From Adopted Levels.
‡ Band 1 K=0.
# Band 2 K=0.
@ Band 3 K=0.
& Band 4 K=0.
a Band 5 K=0.
b K=1: ν 7/2[743]-ν 5/2[622].
c K=2.

ε,β^{+} radiations

Iβ normalization: ε intensities have been deduced from γ-transition intensities requiring an intensity balance at each level. ε intensity to the ground state has been calculated by comparing x-ray intensities expected from ε captures and internal conversion with the measured x-ray intensities.

Continued on next page (footnotes at end of table)

^{238}Am ε decay (continued)

ε,β^+ radiations (continued)

E(decay)	E(level)	Iβ^+ †	Iε†	Log ft	I(ε+β^+)†	Comments
(3.6×10^2 *5*)	1898.26?		0.66 *8*	6.75 *19*	0.66 *8*	εK=0.64 *4*; εL=0.260 *25*; εM+=0.100 *12*
(4.8×10^2 *5*)	1783.6		0.087 *18*	7.94 *16*	0.087 *18*	εK=0.686 *16*; εL=0.228 *11*; εM+=0.085 *5*
(5.3×10^2 *5*)	1726.36		0.76 *10*	7.12 *12*	0.76 *10*	εK=0.700 *12*; εL=0.219 *9*; εM+=0.081 *4*
(6.1×10^2 *5*)	1651.2		0.112 *20*	8.09 *12*	0.112 *20*	εK=0.713 *9*; εL=0.210 *6*; εM+=0.077 *3*
(6.2×10^2 *5*)	1636.42		1.89 *24*	6.89 *11*	1.89 *24*	εK=0.715 *8*; εL=0.208 *6*; εM+=0.0765 *24*
(6.4×10^2 *5*)	1621.29		4.1 *5*	6.58 *10*	4.1 *5*	εK=0.717 *8*; εL=0.207 *5*; εM+=0.0759 *23*
(6.6×10^2 *5*)	1596.4		0.151 *20*	8.05 *10*	0.151 *20*	εK=0.720 *7*; εL=0.205 *5*; εM+=0.0749 *21*
(7.0×10^2 *5*)	1559.85		0.58 *8*	7.52 *10*	0.58 *8*	εK=0.725 *6*; εL=0.202 *4*; εM+=0.0737 *18*
(8.0×10^2 *5*)	1458.31		0.160 *23*	8.21 *9*	0.160 *23*	εK=0.734 *5*; εL=0.195 *3*; εM+=0.0709 *13*
(8.1×10^2 *5*)	1447.25		1.12 *14*	7.38 *9*	1.12 *14*	εK=0.734 *4*; εL=0.195 *3*; εM+=0.0707 *12*
(8.3×10^2 *5*)	1426.61		0.34 *5*	7.92 *9*	0.34 *5*	εK=0.736 *4*; εL=0.194 *3*; εM+=0.0702 *12*
(9.5×10^2‡ *5*)	1310.3?		1.73 *22*	7.35 *8*	1.73 *22*	εK=0.743 *3*; εL=0.1890 *19*; εM+=0.0681 *9*
(1.00×10^3 *5*)	1264.21		0.35 *5*	8.09 *8*	0.35 *5*	εK=0.7452 *25*; εL=0.1874 *17*; εM+=0.0674 *8*
(1.03×10^3 *5*)	1228.66		0.59 *8*	7.89 *8*	0.59 *8*	εK=0.7468 *23*; εL=0.1863 *16*; εM+=0.0669 *7*
(1.09×10^3 *5*)	1174.4		0.092 *16*	8.75 *9*	0.092 *16*	εK=0.7489 *20*; εL=0.1848 *14*; εM+=0.0663 *6*
(1.23×10^3 *5*)	1028.57		0.24 *4*	8.45 *9*	0.24 *4*	εK=0.7537 *15*; εL=0.1814 *11*; εM+=0.0648 *5*
(1.27×10^3 *5*)	985.53		2.3 *3*	7.50 *7*	2.3 *3*	εK=0.7549 *14*; εL=0.1806 *10*; εM+=0.0645 *5*
(1.28×10^3 *5*)	983.09		0.26 *6*	8.45 *11*	0.26 *6*	εK=0.7550 *14*; εL=0.1806 *10*; εM+=0.0644 *5*
(1.30×10^3 *5*)	962.85		54 *6*	6.15 *7*	54 *6*	εK=0.7555 *14*; εL=0.1802 *10*; εM+=0.0643 *4*
(1.32×10^3 *5*)	941.50		0.64 *10*	8.09 *8*	0.64 *10*	εK=0.7560 *13*; εL=0.1798 *9*; εM+=0.0641 *4*
(1.60×10^3 *5*)	661.38		0.19 *10*	9.7^{1u} *3*	0.19 *10*	εK=0.7344 *19*; εL=0.1948 *14*; εM+=0.0708 *6*
(1.65×10^3 *5*)	605.13	0.010 *4*	14.8 *18*	6.94 *6*	14.8 *18*	av Eβ=312 *23*; εK=0.7620 *7*; εL=0.1752 *6*; εM+=0.06214 *25*
(2.22×10^3 *5*)	44.11	0.04 *4*	6 *6*	≥7.2	6 *6*	av Eβ=559 *22*; εK=0.7631 *5*; εL=0.1698 *5*; εM+=0.05991 *19*
(2.26×10^3 *5*)	0.0	0.08 *8*	11 *11*	≥7.0	11 *11*	av Eβ=578 *22*; εK=0.7627 *6*; εL=0.1694 *5*; εM+=0.05975 *19*

† Absolute intensity per 100 decays.

‡ Existence of this branch is questionable.

^{238}Am ε decay (continued)

$\gamma(^{238}$Pu)

Iγ normalization: Normalization obtained from K x ray/G.
$\gamma\gamma$, γce: 1972Ah04.
ce intensities were normalized such that α(K)(962.8γ)=0.0035 (E1 theory).

Eγ	x-ray: Iγ (relative to I(962.8γ)=100)		
99.5 1	82 5	Kα_2 x ray	1972Ah04
103.8 1	124 8	Kα_1 x ray	1972Ah04
117.1 2	46 3	Kβ_1' x ray	1972Ah04
120.6 2	16 1	Kβ_2' x ray	1972Ah04

E$_\gamma$[†]	I$_\gamma$[#&]	E$_i$(level)	J$^\pi_i$	E$_f$	J$^\pi_f$	Mult.[@]	δ	α[a]	Comments
44.1 *1*	0.23 *3*	44.11	2$^+$	0.0	0$^+$	E2		775	Mult.: α(L12)exp=296 *30*\$ L12:L3:M:N=68 *7*\$ 57 *6*\$ 43 *5*\$ 14.6 *15*. α: value given is the E2 theory value lowered by 3% (see 1987Ra01).
101.9 *1*	0.24 *2*	145.99	4$^+$	44.11	2$^+$	E2		14.8	Mult.: from L3/L12=0.62 *9*\$. I$_\gamma$: photon obscured by K x rays. Value is from Ice(L)=2.6 *3* and α(L). From an intensity balance at the 146 level one deduces Iγ=0.137 *13*, suggesting additional feeding to the 146 level.
301.5 *1*	1.80 *15*	962.85	1$^-$	661.38	3$^-$	E2		0.213	α(K)=0.0779 *24*; α(L)=0.098 *3*; α(M)=0.0268 *8*; α(N+..)=0.0102 *3* Mult.: from α(K)exp=0.089 *9* and K:L12:L3:M:N= 0.16 *2*:0.15 *2*:0.055 *6*:0.075 *8*:≈0.034.
324.2 *3*	0.22 *3*	985.53	2$^-$	661.38	3$^-$	M1+E2	2.8 *8*	0.29 *6*	α(K)=0.15 *7*; α(L)=0.084 *8*; α(M)=0.0224 *17*; α(N+..)=0.0085 *6* α: δ gives α=0.27 *+7−4*. Mult.: α(L12)exp≈0.15 and M/L12≈0.37 agree with mult=M1; however, α(K)exp in β^- decay gives mult=M1+E2 with δ=2.8 *8*. If mult were M1, the ce(K) line would have had an intensity of 0.18, a value large enough to have been seen. Note that the ce(K) line of the 301.5γ, with Ice(K)=0.16 is reported. The evaluators adopt the assignment from β^- decay.
357.7 *1*	7.5 *5*	962.85	1$^-$	605.13	1$^-$	M1+E2	2.43 *20*	0.224 *15*	α(K)=0.139 *13*; α(L)=0.0620 *17*; α(M)=0.0163 *4*; α(N+..)=0.00618 *14* Mult.,δ: from α(K)exp=0.16 *2*, L12/K=0.41 *4*, and also α(K)exp=0.13 *2* from β^- decay.
380.3 *2*	0.159 *13*	985.53	2$^-$	605.13	1$^-$	[M1]		0.665	α(K)=0.526 *16*; α(L)=0.104 *4*; α(M)=0.0254 *8*; α(N+..)=0.0094 *3* E$_\gamma$,I$_\gamma$: transition not observed. Iγ is from Iγ/Iγ(941γ)=0.0199 *10* in β^- decay and Eγ is a rounded-off value from β^- decay. Mult.: from Ice(L12)≈0.035 and deduced Iγ, one gets α(L12)exp≈0.22 compared with theory values of 0.034 for E2 and 0.10 for M1. The placement requires ΔJ=1 and $\Delta\pi$=no.
515.4 *2*	1.40 *13*	661.38	3$^-$	145.99	4$^+$	E1+M2	0.114 *17*	0.023 *3*	α(K)=0.0178 *22*; α(L)=0.0039 *6* Mult.,δ: from α(K)exp=0.018 *2*. 1990Si11 report δ=−0.2 *+2−5* in β^- decay.

E_γ[†]	I_γ[#&]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	δ	α[a]	$I_{(\gamma+ce)}$[&]	Comments
561.0 *1*	39.0 *23*	605.13	1^-	44.11	2^+	E1		0.0116		α(K)=0.0093 *3*; α(L)=0.00170 *6* Mult.: from α(K)exp=0.0092 *10*. M/L≈0.087.
^{x}565.8 *3*	0.55 *7*									
574.0 *3*	0.4 *1*	1559.85	1^-	985.53	2^-	M1+E2	3.2 *5*	0.055 *6*		α(K)=0.038 *5*; α(L)=0.0127 *8* Mult.: from α(K)exp=0.038 *4*.
597.0 *3*	0.52 *6*	1559.85	1^-	962.85	1^-	[M1+E2]		0.12 *8*		α(K)=0.09 *7*; α(L)=0.020 *11*
605.1 *1*	27.0 *16*	605.13	1^-	0.0	0^+	E1		0.0101		α(K)=0.00810 *25*; α(L)=0.00146 *5* Mult.: from α(K)exp=0.0078 *8*. K:L12:M=0.21 *2*:0.035 *4*:0.024 *3*. δ(M2/E1)<0.05.
617.4 *2*	2.6 *2*	661.38	3^-	44.11	2^+	E1+M2	0.077 *17*	0.0122 *13*		α(K)=0.0097 *9*; α(L)=0.00188 *23* Mult.,δ: from α(K)exp=0.0096 *10*. 1990Si11 report δ=−0.2 +*1*−*2* in β^- decay.
633.0[‡b] *5*	≈0.2	1596.4	(2^+)	962.85	1^-					
653.3[‡b] *5*	≈0.2	1636.42	1^-	983.09	2^+					
658.4 *2*	0.64 *7*	1621.29	1^-	962.85	1^-	E0+E2+M1		1.39 *14*		Mult.: from α(K)exp=1.08 *11*. K:L12:M=0.69 *7*:0.147 *15*:0.04.
^{x}665.2 *2*						E0				Mult.: no photon was observed. Ice(K)=0.052 *6*.
673.4 *2*		1636.42	1^-	962.85	1^-	E0			0.15 *2*	Mult.: no photons were observed. $I_{(\gamma+ce)}$: Ice(K)=0.12, Ice(L12)=0.026.
679.5 *4*	0.91 *9*	1621.29	1^-	941.50	0^+	E1		0.00809		α=0.00809; α(K)=0.00654 *20*; α(L)=0.00117 *4* Mult.: from α(K)exp<0.009.
^{x}749.2						E0				Mult.: no photon was observed. Ice(K)=0.024 *3*.
821.5 *4*	1.1 *1*	1426.61	0^+	605.13	1^-	E1		0.00574		α=0.00574; α(K)=0.00465 *14*; α(L)=0.00082 *3* Mult.: from α(K)exp<0.008.
(837.1 *2*)	0.13 *3*	983.09	2^+	145.99	4^+	[E2]		0.0176		α(K)=0.0126 *4*; α(L)=0.00375 *12* E_γ,I_γ: transition was not observed in ε decay. Iγ is deduced from Iγ(837γ)/Iγ(939γ)=1.06 *25* in α decay and Eγ is a rounded-off value from β^- decay and α decay.
841.9 *4*		1447.25	1^-	605.13	1^-	E0			0.106 *11*	Mult.: no photons were observed. $I_{(\gamma+ce)}$: Ice(K)=0.084 *9* and assumptions that L/K=0.22 and M+/L=0.3.
(882.6 *1*)	0.0153 *15*	1028.57	2^+	145.99	4^+	E2		0.0159		α(K)=0.0115 *4*; α(L)=0.00328 *10* E_γ,I_γ: not observed in ε decay. E is a rounded-off value from β^- decay, and Iγ is from Iγ/Iγ(984γ+1028γ)=0.01866 *19* in β^- decay. Mult.: from β^- decay.
^{x}884.3 *3*	0.47 *6*									
897.3 *2*	2.0 *2*	941.50	0^+	44.11	2^+	(E2)		0.0154		α(K)=0.0112 *4*; α(L)=0.00314 *10* Mult.: from α(K)exp≈0.008 mult=E1 or E2. The placement requires $\Delta\pi$=no.
^{x}908.8 *2*	0.78 *7*					M1		0.0646		α(K)=0.0513 *16*; α(L)=0.0100 *3* Mult.: α(K)exp=0.055 *6*$.

γ(^{238}Pu) (continued)

E_γ[†]	I_γ[#&]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	δ	α[a]	$I_{(\gamma+ce)}$[&]	Comments
918.7 *1*	82 *5*	962.85	1⁻	44.11	2⁺	E1		0.00471		α=0.00471; α(K)=0.00383 *12*; α(L)=0.00067 *2* Mult.: from α(K)exp=0.0037 *4*. δ(M2/E1)<0.05.
935.2[‡b] *3*	≈0.3	1898.26?	2⁻	962.85	1⁻					
939.0 *2*	0.121 *13*	983.09	2⁺	44.11	2⁺	E0+E2		4.4 *4*		I_γ: no photons were observed in ε decay. Iγ is deduced from Ice(K)=0.42 *4* and Ice(L)=0.082 *8* (with M+/L taken as 0.3) and α=4.4 *4* from β⁻ decay. Mult.: from β⁻ decay.
941.4 *1*	8.0 *5*	985.53	2⁻	44.11	2⁺	[E1+M2]	−0.17 +*1*−*2*	0.0081 *5*		α=0.0081 *5*; α(K)=0.0064 *7*; α(L)=0.00127 *8* Mult.,δ: from β⁻ decay.
941.5 *2*		941.50	0⁺	0.0	0⁺	E0			1.18 *11*	Mult.: no photons observed. Ice(K)=0.93 *10*, Ice(L12)=0.19 *2*.
954.7 *3*	≈0.3	1559.85	1⁻	605.13	1⁻	[M1+E2]		0.035 *22*		α(K)=0.028 *18*; α(L)=0.006 *3*
962.8 *1*	100	962.85	1⁻	0.0	0⁺	E1		0.00434		α=0.00434; α(K)=0.00353 *11*; α(L)=0.00061 *2* Mult.: from β⁻ decay. Ice(K) normalized to 0.35. K:L12:L3:M= (0.35):0.066 *7*:≈0.005:0.013 *2*.
(983.0 *3*)	0.34 *9*	983.09	2⁺	0.0	0⁺	[E2]		0.0129		E_γ,I_γ: transition was not observed in ε decay. Iγ is deduced from Iγ/Iγ(939γ)=2.8 *8* in α decay and Eγ is from α decay.
984.0 *5*	0.41 *5*	1028.57	2⁺	44.11	2⁺	M1+E2	>+23	0.0129		α(K)=0.0096; α(L)=0.00252 *1* Mult.: from β⁻ decay. α(K)exp≈0.012 in ε decay.
1016.2 *2*	1.0 *1*	1621.29	1⁻	605.13	1⁻	E0+E2+M1		0.66 *7*		Mult.: from α(K)exp=0.51 *5*. K:L12:M=0.51 *5*:0.103 *11*:0.025 *3*.
1028.5 *4*	0.41 *6*	1028.57	2⁺	0.0	0⁺	E2		0.0119		α(K)=0.0089 *3*; α(L)=0.00226 *7* Mult.: from β⁻ decay.
1031.3 *3*		1636.42	1⁻	605.13	1⁻	E0			0.188 *19*	Mult.: no photons were observed. $I_{(\gamma+ce)}$: Ice(K)=0.143, Ice(L12)=0.034.
[x]1097.3 *3*	1.1 *1*					(E2)		0.0105		α(K)=0.00793 *24*; α(L)=0.00194 *6* Mult.: α(K)exp≈0.006$.
1118.2 *3*	0.63 *7*	1264.21	2⁺	145.99	4⁺	[E2]		0.0102		α(K)=0.00768 *23*; α(L)=0.00186 *6*
1130.2 *5*	0.18 *3*	1174.4	(2⁺)	44.11	2⁺					
1174.5 *5*	0.15 *3*	1174.4	(2⁺)	0.0	0⁺					
1184.5 *3*	1.90 *16*	1228.66	0⁺	44.11	2⁺	E2		0.0091		α=0.0091; α(K)=0.00695 *21*; α(L)=0.00163 *5* Mult.: from α(K)exp=0.0074 *8*. L12/K≈0.31 0.0091.
1220.1 *3*	0.50 *6*	1264.21	2⁺	44.11	2⁺	E0+E2+M1		0.26 *3*		Mult.: from α(K)exp=0.21 *2*, L12/K=0.17 *3*.
[x]1226.4 *3*	0.16 *3*									
1228.7 *3*		1228.66	0⁺	0.0	0⁺	E0			0.175 *16*	Mult.: no photons were observed. $I_{(\gamma+ce)}$: Ice(K)=0.143 *15*, Ice(L12)=0.024 *3*.
[x]1231.3 *3*	0.15 *3*									
1237.0[‡b] *3*	0.89 *8*	1898.26?	2⁻	661.38	3⁻	M1		0.0285		α(K)=0.0227 *7*; α(L)=0.00440 *14* Mult.: from α(K)exp=0.022.

$^{238}_{94}Pu_{144}$-5

^{238}Am ε decay (continued)

γ(^{238}Pu) (continued)

E_γ[†]	I_γ[#&]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[@]	α[a]	$I_{(\gamma+ce)}$[&]	Comments
1266.2 3	6.0 4	1310.3?	$1^+,2^+$	44.11	2^+	M1	0.0268		α(K)=0.0213 7; α(L)=0.00413 13 Mult.: from α(K)exp=0.021 2. K:L12:M=0.123:0.02:≈0.0054.
1293.2[‡b] 3	1.1 1	1898.26?	2^-	605.13	1^-	M1	0.0254		α(K)=0.0202 6; α(L)=0.00391 12 Mult.: from α(K)exp=0.020 2. L12/K≈0.14.
[x]1368.8 5	≈0.2								
1403.2 3	2.4 2	1447.25	1^-	44.11	2^+	E1	0.00229		α=0.00229; α(K)=0.00187 6; α(L)=0.00032 1 Mult.: from α(K)exp≈0.0013.
1414.0 3	≈0.1	1458.31	2^+	44.11	2^+	E0+E2+M1	≈0.27		Mult.: from α(K)exp≈0.22. L12/K≈0.18. Ice(K)=0.022 3.
1426.6 3		1426.61	0^+	0.0	0^+	E0		0.093 10	Mult.: no photons were observed. $I_{(\gamma+ce)}$: Ice(K)=0.075 8, Ice(L12)=0.0133 14.
1447.3 3	1.5 1	1447.25	1^-	0.0	0^+	E1	0.00217		α=0.00217; α(K)=0.00177 6; α(L)=0.00030 1 Mult.: from α(K)exp<0.002.
1450.4[‡b] 5	≈0.2	1596.4	(2^+)	145.99	4^+				
1458.5 3	0.44 5	1458.31	2^+	0.0	0^+		0.0062		
[x]1501.7 5						E0			Mult.: no photon was observed. Ice(K)=0.053 6.
1515.9 3	0.41 5	1559.85	1^-	44.11	2^+				
[x]1551.0 5						E0			Mult.: no photon was observed. Ice(K)=0.008.
1552.2 3	0.26 4	1596.4	(2^+)	44.11	2^+				
1560.0 3	0.34 5	1559.85	1^-	0.0	0^+				
1577.3 3	10.3 8	1621.29	1^-	44.11	2^+	E1	0.00154		α=0.00154; α(K)=0.00154 5 Mult.: from α(K)exp≈0.001.
1592.5 3	1.70 17	1636.42	1^-	44.11	2^+				
1596.5 5	≈0.08	1596.4	(2^+)	0.0	0^+				
1607.0 4	0.34 5	1651.2	$1,2^+$	44.11	2^+				
1621.4 4	≈0.06	1621.29	1^-	0.0	0^+				
1636.6 3	4.5 4	1636.42	1^-	0.0	0^+	E1			Mult.: from α(K)exp≈0.0013.
1651.4 5	0.06 2	1651.2	$1,2^+$	0.0	0^+				
1682.2 3	1.70 17	1726.36	$1,2^+$	44.11	2^+	E1,E2			Mult.: from α(K)exp≈0.0029.
1726.4 3	1.0 1	1726.36	$1,2^+$	0.0	0^+				
1739.4 4	0.10 2	1783.6	$1,2^+$	44.11	2^+				
[x]1761.5 4	0.32 4								
1783.6 4	0.21 5	1783.6	$1,2^+$	0.0	0^+				
[x]1789.0 5	≈0.04								
[x]1835.1 5	0.12 3								

[†] Measurements of 1972Ah04 (semi) are given here. Eγ′s measured by 1972PoZS agree with those of 1972Ah04.
[‡] Unplaced by authors. Placement suggested by the evaluators on the basis of energy fit (2002Ch52).
[#] From 1972Ah04. Measurements of 1972PoZS are in agreement with those of 1972Ah04.
[@] From ce measurements of 1972Ah04 (semi) in ^{238}Am ε decay, and from ^{242}Cm α decay, ^{238}Np β decay data.
[&] For absolute intensity per 100 decays, multiply by 0.28 3.

$\gamma(^{238}Pu)$ (continued)

[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.
[x] γ ray not placed in level scheme.

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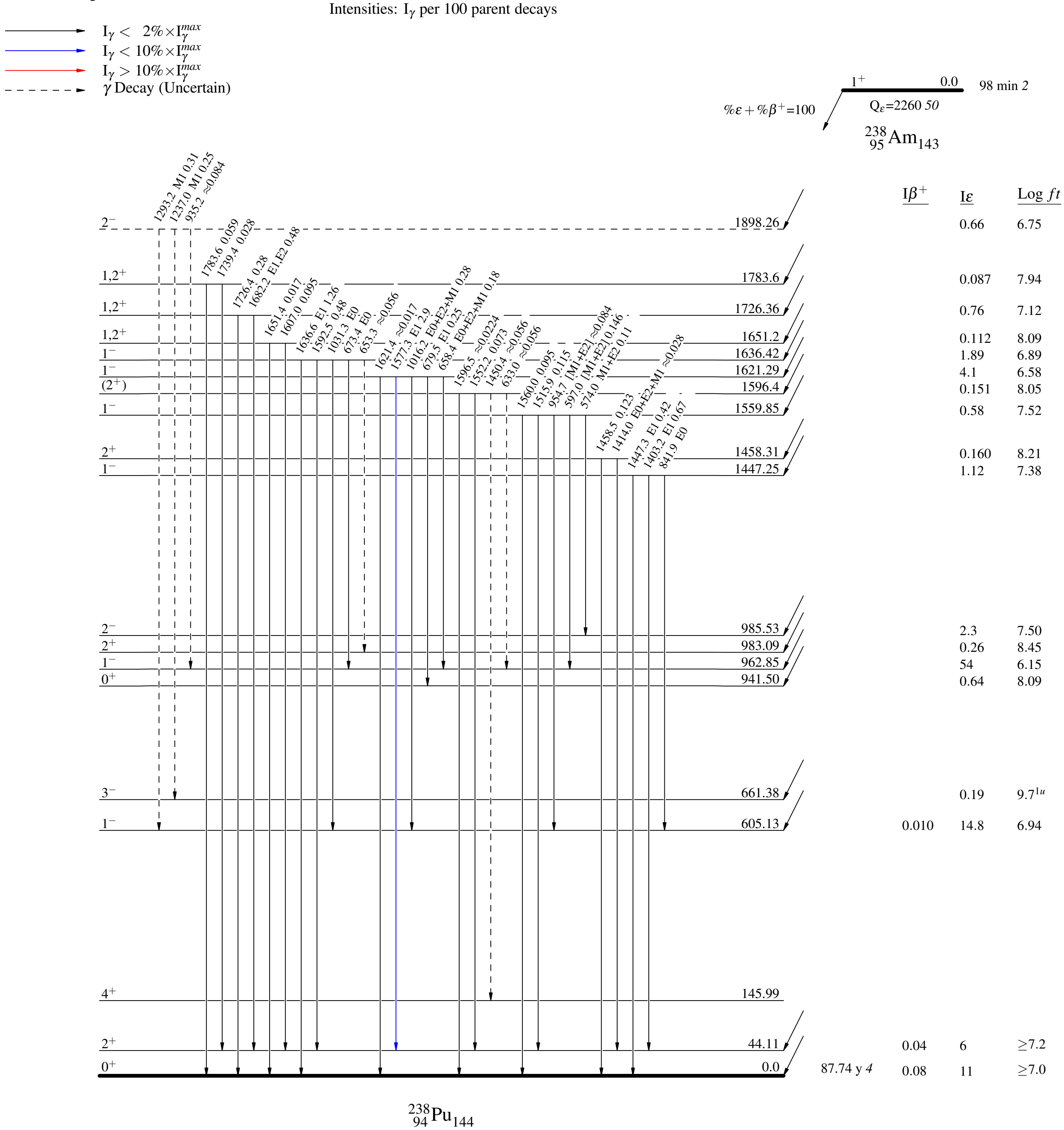
^{238}Am ε decay

Decay Scheme



^{238}Am ε decay

Decay Scheme (continued)

Intensities: I_γ per 100 parent decays