^{245}Pu β^- decay 1968Da02,1968WaZZ

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 189,1 (2023)	14-Feb-2023

Parent: ^{245}Pu: E=0.0; J^π=(9/2$^-$); $T_{1/2}$=10.54 h *6*; Q(β^-)=1278 *14*; %β^- decay=100

^{245}Pu-Q(β^-): From 2021Wa16.

1979Bo30: ^{245}Pu produced from ^{244}Pu neutron capture reaction. Gammas from the ^{245}Pu β decay were measured with high precision curved crystal γ-ray spectrometers at the high flux reactor in Grenoble. Deduced levels energies.

1968Da02: ^{245}Pu produced from thermal neutron incident on enriched ^{244}Pu at Oak Ridge National Laboratory followed by chemical purification. ^{245}Pu was prepared into thin films for the conversion electron, β and X-ray measurements, and thicker sources for the γ-ray measurements. Conversion electrons and the β-spectrum were measured using Si(Li) detectors. Gamma rays were measured with a Ge(Li) and NaI(Tl) detectors. For the low energy region, a Xe-filled proportional counter and Si(Li) detector were used. Measured $t_{1/2}$, Eγ, Iγ, Ice, Eβ, Iβ, $\gamma\gamma$-coin, and $\beta\gamma$-coin. Deduced levels, J^π, and log*ft*.

1968WaZZ: ^{245}Pu was produced at the Oak Ridge Research Reactor from neutron incident on enriched ^{244}Pu. Gamma rays were measured with a Ge(Li) detector with a FWHM=2.48 keV for 1.332-MeV γ rays.

The ^{245}Pu β^- decay scheme shown is basically that proposed by 1968Da02 and 1968WaZZ. Two additional levels, at 757 and 796 keV, were tentatively proposed by 1968Da02. Of the transitions suggested to deexcite these levels, 670, 738, and 796 γ rays were placed elsewhere in the decay scheme; energy fits of remaining γ rays are poor. These two proposed levels and their de-excitation γ rays are not given here.

^{245}Am Levels

E(level)†	J^π	$T_{1/2}$	Comments
0.0‡	5/2$^+$	2.05 h *1*	$T_{1/2}$: From Adopted Level.
19.198‡ *11*	7/2$^+$		
27.95# *14*	(5/2$^-$)		
47.075‡ *12*	(9/2$^+$)		
70.42# *9*	(7/2$^-$)		
87.65 *4*	(11/2$^+$)		
124.66# *8*	(9/2$^-$)		
134.49 *11*	(13/2$^+$)		
190.81# *13*	(11/2$^-$)		
327.429@ *8*	7/2$^+$		
395.873@ *11*	9/2$^+$		
475.522@ *22*	11/2$^+$		
563.04@ *20*	(13/2$^+$)		
887.468 *14*	(7/2$^+$)		
920.97 *7*	(9/2$^+$,11/2$^+$)		
957.534 *16*	(9/2)$^+$		
987.52 *4*	(7/2$^+$,9/2$^+$)		
1024.23 *14*	(7/2$^+$,9/2$^-$)		
1065.23 *9*			
1111.18 *18*			
1185.6 *3*			

Continued on next page (footnotes at end of table)

^{245}Pu β^- decay 1968Da02,1968WaZZ (continued)

^{245}Am Levels (continued)

† From least-squares fit to Eγ data by the evaluator.
‡ Band(A): 5/2[642] rotational band.
# Band(B): 5/2[523] rotational band.
@ Band(C): 7/2[633] rotational band.

β^- radiations

β branch intensities shown on the decay scheme have been deduced by the evaluator from γ-ray transition intensity balances. The individual branchings to levels in the 5/2[642] and 5/2[523] bands could not be deduced because the low-energy gammas expected between them were not observed. The total β^- intensity to these levels is taken to be 1/5 of the total β intensity to the 7/2[633] band, as reported in 1968Da02.
Beta spectrum measured by 1968Da02:
Singles: E(β)=1210 *40*, I(β) ≈ 1/5 of 930-keV β^-.
(327γ)β-coincidence: E(β)=930 *30*.
(800γ)β coincidence: E(β) ≈ 400.

E(decay)	E(level)	Iβ^- †	Log *ft*	Comments
(92 *14*)	1185.6	0.12 *2*	6.58 *23*	av Eβ=23.9 *38*
(167 *14*)	1111.18	0.66 *14*	6.63 *15*	av Eβ=44.3 *40*
(213 *14*)	1065.23	1.7 *3*	6.55 *12*	av Eβ=57.4 *41*
(254 *14*)	1024.23	1.1 *3*	6.98 *15*	av Eβ=69.3 *42*
(291 *14*)	987.52	2.9 *5*	6.74 *11*	av Eβ=80.2 *42*
(321 *14*)	957.534	8.3 *13*	6.42 *10*	av Eβ=89.2 *43*
(357 *14*)	920.97	2.2 *4*	7.15 *10*	av Eβ=100.4 *44*
(391 *14*)	887.468	14.7 *22*	6.45 *9*	av Eβ=110.8 *44*
(715 *14*)	563.04	0.02 *4*	10.4[1u] *9*	av Eβ=215.3 *45*
(803 *14*)	475.522	0.40 *19*	9.05 *21*	av Eβ=248.3 *50*
(882 *14*)	395.873	3.8 *9*	8.21 *11*	av Eβ=276.6 *51*
(951 *14*)	327.429	51 *13*	7.20 *12*	av Eβ=301.2 *51* E(decay): 930 keV *30* (1968Da02).
(1087 *14*)	190.81			
(1144‡ *14*)	134.49			
(1153 *14*)	124.66			
(1190 *14*)	87.65			
(1208 *14*)	70.42			
(1231 *14*)	47.075	≈10	≈8.3	av Eβ=404.8 *54* E(decay): 1210 keV *40* (1968Da02. Iβ^-: total β intensity to 5/2[642] and 5/2[523] bands.
(1259 *14*)	19.198			
(1278‡ *14*)	0.0			

† Absolute intensity per 100 decays.
‡ Existence of this branch is questionable.

γ(^{245}Am)

Iγ normalization: Deduced by the evaluator using: Iβ(930)/Iβ(1210)=5, as measured in 1968Da02, and sum of γ-ray transition intensities to levels below 327 keV equal to [100% − Iβ(1210)]. The uncertainty in Iγ normalization=0.18 *2* includes 4% from the total intensity of γ rays unplaced in the decay scheme, and 5%, estimated by the evaluator for the experimental reported ratio of Iβ(930)/Iβ(1210)=5.

Of the 114 γ rays observed, 47 γ rays have not been placed on the decay scheme. Sum of photon intensities of unplaced gammas amounts to about 14% of the 327γ photon intensity. The expected low-energy intra- and inter-band transition between the states in the 5/2[642] and 5/2[523] bands, except the 28-keV transition, have not been observed. These transitions should settle the imbalances at those levels with the present decay scheme.

E_γ[†]	I_γ[#b]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[@]	δ[&]	α[a]	Comments
28 *1*	4 *2*	27.95	(5/2$^-$)	0.0	5/2$^+$	(E1)		3.8 *4*	%Iγ=0.7 *4* α(L)=2.78 *27*; α(M)=0.73 *7* α(N)=0.195 *20*; α(O)=0.044 *4*; α(P)=0.0059 *5*; α(Q)=0.000138 *10* Mult.: From nonobservation of any ce-line, 1968Da02 suggested that 28γ was an E1 transition as any other multipolarity would have a very high conversion coefficient.
[x]277.0 *5*	0.10 *5*								%Iγ=0.018 *9*
280.385[‡] *13*	7.6 *8*	327.429	7/2$^+$	47.075	(9/2$^+$)	(M1+E2)	0.7 *+7−6*	1.1 *4*	%Iγ=1.34 *23* α(K)=0.9 *4*; α(L)=0.21 *4*; α(M)=0.054 *8* α(N)=0.0147 *20*; α(O)=0.0037 *5*; α(P)=0.00068 *13*; α(Q)=3.6×10^{-5} *15* ce(K)=0.83 *38*.
[x]293.2 *5*	0.10 *5*								%Iγ=0.018 *9*
[x]299.8 *7*	0.10 *5*								%Iγ=0.018 *9*
308.222[d‡] *8*	29[d] *3*	327.429	7/2$^+$	19.198	7/2$^+$	M1(+E2)	0.6 *9*	0.9 *4*	%Iγ=5.1 *9* α(K)=0.7 *4*; α(L)=0.17 *4*; α(M)=0.041 *9* α(N)=0.0113 *24*; α(O)=0.0028 *6*; α(P)=5.3×10^{-4} *14*; α(Q)=3.0×10^{-5} *15* ce(K)=0.74 *33*, ce(L)=0.15 *6*, K/L=4.9 *29*.
308.222[d‡e]	[d]	395.873	9/2$^+$	87.65	(11/2$^+$)				
327.428[‡] *8*	150 *15*	327.429	7/2$^+$	0.0	5/2$^+$	M1(+E2)	0.5 *7*	0.85 *33*	%Iγ=26 *4* α(K)=0.66 *29*; α(L)=0.145 *34*; α(M)=0.036 *7* α(N)=0.0098 *20*; α(O)=0.0025 *5*; α(P)=0.00046 *11*; α(Q)=2.7×10^{-5} *11* ce(K)=0.66 *24*, ce(L)=0.15 *6*, K/L=4.4 *23*.
[x]333.1 *3*	0.2 *1*								%Iγ=0.035 *18*
341.00 *15*	0.6 *1*	475.522	11/2$^+$	134.49	(13/2$^+$)	[M1]		0.917 *13*	%Iγ=0.106 *23*

γ(^{245}Am) (continued)

E_γ [†]	I_γ [#b]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [a]	Comments
								α(K)=0.724 *10*; α(L)=0.1453 *20*; α(M)=0.0354 *5* α(N)=0.00967 *14*; α(O)=0.002434 *34*; α(P)=0.000465 *7*; α(Q)=2.95×10^{-5} *4*
348.782[‡] *9*	5.7 *6*	395.873	9/2$^+$	47.075	(9/2$^+$)	[M1]	0.862 *12*	%Iγ=1.00 *17* α(K)=0.680 *10*; α(L)=0.1365 *19*; α(M)=0.0332 *5* α(N)=0.00908 *13*; α(O)=0.002286 *32*; α(P)=0.000437 *6*; α(Q)=2.77×10^{-5} *4*
357.90 *20*	0.37 *10*	920.97	(9/2$^+$,11/2$^+$)	563.04	(13/2$^+$)			%Iγ=0.065 *20*
376.676[‡] *3*	19 *2*	395.873	9/2$^+$	19.198	7/2$^+$	(M1)	0.698 *10*	%Iγ=3.3 *6* α(K)=0.551 *8*; α(L)=0.1104 *15*; α(M)=0.0269 *4* α(N)=0.00734 *10*; α(O)=0.001849 *26*; α(P)=0.000353 *5*; α(Q)=2.241×10^{-5} *31* ce(K)=0.61 *26*.
387.879[‡] *32*	1.7 *4*	475.522	11/2$^+$	87.65	(11/2$^+$)	[M1]	0.644 *9*	%Iγ=0.30 *8* α(K)=0.509 *7*; α(L)=0.1019 *14*; α(M)=0.02479 *35* α(N)=0.00677 *9*; α(O)=0.001705 *24*; α(P)=0.000326 *5*; α(Q)=2.067×10^{-5} *29*
[x]392.7 *4*	0.4 *3*							%Iγ=0.07 *5*
395.87 *15*	0.6 *2*	395.873	9/2$^+$	0.0	5/2$^+$	[E2]	0.1004 *14*	%Iγ=0.11 *4* α(K)=0.0482 *7*; α(L)=0.0382 *5*; α(M)=0.01033 *15* α(N)=0.00285 *4*; α(O)=0.000691 *10*; α(P)=0.0001187 *17*; α(Q)=2.505×10^{-6} *35*
411.935[‡] *41*	2.9 *3*	887.468	(7/2$^+$)	475.522	11/2$^+$	[E2]	0.0903 *13*	%Iγ=0.51 *9* α(K)=0.0450 *6*; α(L)=0.0332 *5*; α(M)=0.00896 *13* α(N)=0.002470 *35*; α(O)=0.000600 *8*; α(P)=0.0001034 *14*; α(Q)=2.293×10^{-6} *32*
[x]423.2 *3*	<0.2							%Iγ=0.035 *5*
428.438[d‡] *22*	3.1[d] *3*	475.522	11/2$^+$	47.075	(9/2$^+$)	[M1]	0.491 *7*	%Iγ=0.55 *9* α(K)=0.388 *5*; α(L)=0.0775 *11*; α(M)=0.01886 *26* α(N)=0.00515 *7*; α(O)=0.001297 *18*; α(P)=0.0002481 *35*; α(Q)=1.573×10^{-5} *22*
428.438[de]	[d]	563.04	(13/2$^+$)	134.49	(13/2$^+$)			
[x]439.0 *10*	0.2 *1*							%Iγ=0.035 *18*
445.34 *10*	1.8 *3*	920.97	(9/2$^+$,11/2$^+$)	475.522	11/2$^+$	[M1]	0.442 *6*	%Iγ=0.32 *7* α(N)=0.00464 *6*; α(O)=0.001167 *16*; α(P)=0.0002231 *31*; α(Q)=1.414×10^{-5} *20* α(K)=0.349 *5*; α(L)=0.0697 *10*; α(M)=0.01696 *24*
[x]450.0 *10*	0.2 *1*							%Iγ=0.035 *18*
475.1 *6*	0.35 *15*	563.04	(13/2$^+$)	87.65	(11/2$^+$)	[M1]	0.371 *5*	%Iγ=0.062 *28* α(K)=0.293 *4*; α(L)=0.0584 *8*; α(M)=0.01421 *20*

From ENSDF

$^{245}_{95}Am_{150}$-4

γ(^{245}Am) (continued)

Eγ[†]	Iγ[#b]	Ei(level)	J^π_i	Ef	J^π_f	Mult.[@]	α[a]	Comments
								α(N)=0.00388 6; α(O)=0.000977 14; α(P)=0.0001869 27; α(Q)=1.185×10^{-5} 17
[x]479.8 10	0.12 6							%Iγ=0.021 11
481.9 10	0.08 4	957.534	(9/2)$^+$	475.522	11/2$^+$	[M1]	0.357 5	%Iγ=0.014 7 α(K)=0.282 4; α(L)=0.0562 8; α(M)=0.01367 21 α(N)=0.00373 6; α(O)=0.000940 14; α(P)=0.0001798 27; α(Q)=1.140×10^{-5} 17
[x]486.3 6	0.2 1							%Iγ=0.035 18
491.591[‡] 9	16 2	887.468	(7/2$^+$)	395.873	9/2$^+$	(E2)	0.0579 8	%Iγ=2.8 5 α(K)=0.0329 5; α(L)=0.01835 26; α(M)=0.00489 7 α(N)=0.001345 19; α(O)=0.000328 5; α(P)=5.74×10^{-5} 8; α(Q)=1.564×10^{-6} 22 ce(K)≤0.4.
511.5 10	0.2 1	987.52	(7/2$^+$,9/2$^+$)	475.522	11/2$^+$			%Iγ=0.035 18
[x]514.6 2	1.0 2							%Iγ=0.18 4
[x]518.2 5	0.3 1							%Iγ=0.053 19
525.08 15	1.6 2	920.97	(9/2$^+$,11/2$^+$)	395.873	9/2$^+$	[M1]	0.283 4	%Iγ=0.28 5 α(K)=0.2237 31; α(L)=0.0445 6; α(M)=0.01082 15 α(N)=0.00296 4; α(O)=0.000744 10; α(P)=0.0001423 20; α(Q)=9.02×10^{-6} 13
[x]530.6 3	0.2 1							%Iγ=0.035 18
549.2 6	0.2 1	1024.23	(7/2$^+$,9/2$^-$)	475.522	11/2$^+$			%Iγ=0.035 18
560.134[d‡] 49	32[d] 3	887.468	(7/2$^+$)	327.429	7/2$^+$	(E2)	0.0427 6	%Iγ=5.6 9 α(K)=0.0262 4; α(L)=0.01217 17; α(M)=0.00321 4 α(N)=0.000882 12; α(O)=0.0002158 30; α(P)=3.81×10^{-5} 5; α(Q)=1.191×10^{-6} 17 ce(K)=0.024 11.
560.134[de] 49	[d]	957.534	(9/2)$^+$	395.873	9/2$^+$			Poor fit, calculated final level=397.40 keV 6.
591.6 3	1.0 2	987.52	(7/2$^+$,9/2$^+$)	395.873	9/2$^+$			%Iγ=0.18 4
593.7 6	0.2 1	920.97	(9/2$^+$,11/2$^+$)	327.429	7/2$^+$			%Iγ=0.035 18
[x]598.8 3	0.7 2							%Iγ=0.12 4
[x]624.4 4	1.3 2							%Iγ=0.23 5
630.102[d‡] 14	16[d] 2	957.534	(9/2)$^+$	327.429	7/2$^+$	M1	0.1730 24	%Iγ=2.8 5 α(K)=0.1370 19; α(L)=0.0271 4; α(M)=0.00659 9 α(N)=0.001801 25; α(O)=0.000453 6; α(P)=8.67×10^{-5} 12; α(Q)=5.50×10^{-6} 8 ce(K)=0.14 6, ce(L)=0.04 2, K/L=3.5 22.
630.102[de]	[d]	1024.23	(7/2$^+$,9/2$^-$)	395.873	9/2$^+$			Poor fit, calculated final level=394.13 keV 14.
[x]642	<0.2							%Iγ=0.035 5
[x]657.2 7	0.8 4							%Iγ=0.14 7

From ENSDF

$^{245}_{95}Am_{150}$-5

γ(^{245}Am) (continued)

E_γ[†]	I_γ[#b]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	α[a]	Comments
660.082[‡] *42*	5.0 *7*	987.52	(7/2$^+$,9/2$^+$)	327.429	7/2$^+$			%Iγ=0.88 *17*
[x]662.2 *7*	0.5 *2*							%Iγ=0.09 *4*
669.28 *10*	2.0 *3*	1065.23		395.873	9/2$^+$			%Iγ=0.35 *7*
[x]687.6 *8*	0.2 *1*							%Iγ=0.035 *18*
[x]691	<0.2							%Iγ=0.035 *5*
696.8 *4*	0.5 *2*	1024.23	(7/2$^+$,9/2$^-$)	327.429	7/2$^+$			%Iγ=0.09 *4*
[x]701.7 *3*	0.4 *2*							%Iγ=0.07 *4*
[x]707.98 *20*	1.6 *3*							%Iγ=0.28 *7*
[x]712[e]	<0.2							%Iγ=0.035 *5*
730.40 *20*	1.1 *2*	920.97	(9/2$^+$,11/2$^+$)	190.81	(11/2$^-$)	[E1]	0.00732 *10*	%Iγ=0.19 *4* α(K)=0.00592 *8*; α(L)=0.001061 *15*; α(M)=0.000255 *4* α(N)=6.92×10^{-5} *10*; α(O)=1.728×10^{-5} *24*; α(P)=3.23×10^{-6} *5*; α(Q)=1.909×10^{-7} *27*
[x]733.5 *4*	0.5 *2*							%Iγ=0.09 *4*
737.96 *20*	1.3 *3*	1065.23		327.429	7/2$^+$			%Iγ=0.23 *6*
[x]740.2 *7*	0.8 *3*							%Iγ=0.14 *6*
[x]743.70 *20*	0.9 *2*							%Iγ=0.16 *4*
[x]750.1 *10*	0.1 *1*							%Iγ=0.018 *18*
[x]758.2 *8*	0.2 *1*							%Iγ=0.035 *18*
762.73 *10*	4.2 *4*	887.468	(7/2$^+$)	124.66	(9/2$^-$)	[E1]	0.00677 *9*	%Iγ=0.74 *12* α(K)=0.00548 *8*; α(L)=0.000978 *14*; α(M)=0.0002346 *33* α(N)=6.37×10^{-5} *9*; α(O)=1.593×10^{-5} *22*; α(P)=2.98×10^{-6} *4*; α(Q)=1.772×10^{-7} *25*
766.59 *15*	2.1 *3*	957.534	(9/2)$^+$	190.81	(11/2$^-$)	[E1]	0.00671 *9*	%Iγ=0.37 *7* α(K)=0.00543 *8*; α(L)=0.000969 *14*; α(M)=0.0002324 *33* α(N)=6.31×10^{-5} *9*; α(O)=1.578×10^{-5} *22*; α(P)=2.96×10^{-6} *4*; α(Q)=1.756×10^{-7} *25*
[x]776.66 *20*	1.2 *2*							%Iγ=0.21 *5*
[x]781.55 *30*	0.4 *2*							%Iγ=0.07 *4*
786.54 *15*	2.2 *3*	920.97	(9/2$^+$,11/2$^+$)	134.49	(13/2$^+$)			%Iγ=0.39 *7*
796.37 *17*	1.5 *4*	920.97	(9/2$^+$,11/2$^+$)	124.66	(9/2$^-$)	[E1]	0.00627 *9*	%Iγ=0.26 *8* α(K)=0.00508 *7*; α(L)=0.000903 *13*; α(M)=0.0002164 *30* α(N)=5.88×10^{-5} *8*; α(O)=1.470×10^{-5} *21*; α(P)=2.76×10^{-6} *4*; α(Q)=1.645×10^{-7} *23*
799.87 *10*	9.3 *10*	887.468	(7/2$^+$)	87.65	(11/2$^+$)	[E2]	0.02015 *28*	%Iγ=1.64 *28* α(K)=0.01416 *20*; α(L)=0.00445 *6*; α(M)=0.001139 *16* α(N)=0.000312 *4*; α(O)=7.71×10^{-5} *11*; α(P)=1.400×10^{-5} *20*; α(Q)=5.86×10^{-7} *8*
817.04 *10*	5.0 *5*	887.468	(7/2$^+$)	70.42	(7/2$^-$)	[E1]	0.00599 *8*	%Iγ=0.88 *15*

From ENSDF

$^{245}_{95}$Am$_{150}$-6

$\gamma(^{245}Am)$ (continued)

E_γ [†]	I_γ [#b]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [a]	Comments
								α(K)=0.00485 7; α(L)=0.000861 12; α(M)=0.0002063 29 α(N)=5.60×10^{-5} 8; α(O)=1.401×10^{-5} 20; α(P)=2.63×10^{-6} 4; α(Q)=1.575×10^{-7} 22
[x]821.9 7	0.5 2							%Iγ=0.09 4
824[e]	<0.2	957.534	(9/2)$^+$	134.49	(13/2$^+$)			%Iγ=0.035 5
833.14[c] 20	≤3.1[c]	920.97	(9/2$^+$,11/2$^+$)	87.65	(11/2$^+$)			%Iγ=0.55 7
833.14[c] 20	≤3.1[c]	957.534	(9/2)$^+$	124.66	(9/2$^-$)			%Iγ=0.55 7 Iγ=3.1 3 was measured.
840.56 10	7.6 8	887.468	(7/2$^+$)	47.075	(9/2$^+$)			%Iγ=1.34 23
859.53 15	3.0 3	887.468	(7/2$^+$)	27.95	(5/2$^-$)	[E1]	0.00548 8	%Iγ=0.53 9 α(K)=0.00444 6; α(L)=0.000784 11; α(M)=0.0001878 26 α(N)=5.10×10^{-5} 7; α(O)=1.276×10^{-5} 18; α(P)=2.399×10^{-6} 34; α(Q)=1.446×10^{-7} 20
868.8 4	0.7 2	887.468	(7/2$^+$)	19.198	7/2$^+$			%Iγ=0.12 4
870.5 5	0.4 2	957.534	(9/2)$^+$	87.65	(11/2$^+$)			%Iγ=0.07 4
874.16 20	0.8 2	920.97	(9/2$^+$,11/2$^+$)	47.075	(9/2$^+$)			%Iγ=0.14 4
[x]879.6 4	0.3 1							%Iγ=0.053 19
887.14[de]	[d]	887.468	(7/2$^+$)	0.0	5/2$^+$			
887.14[d] 15	4.2[d] 5	957.534	(9/2)$^+$	70.42	(7/2$^-$)			%Iγ=0.74 13
899.3 10	0.2 1	1024.23	(7/2$^+$,9/2$^-$)	124.66	(9/2$^-$)			%Iγ=0.035 18
901.9 8	0.30 15	920.97	(9/2$^+$,11/2$^+$)	19.198	7/2$^+$			%Iγ=0.053 27
910.46 7	8.2 8	957.534	(9/2)$^+$	47.075	(9/2$^+$)			%Iγ=1.44 24
917.0 5	0.5 2	987.52	(7/2$^+$,9/2$^+$)	70.42	(7/2$^-$)			%Iγ=0.09 4
[x]923.0 6	0.3 1							%Iγ=0.053 19
[x]925.4 10	0.10 5							%Iγ=0.018 9
930.3 6	0.30 15	1065.23		134.49	(13/2$^+$)			%Iγ=0.053 27
938.4 2	6.0 10	957.534	(9/2)$^+$	19.198	7/2$^+$			%Iγ=1.06 23
941.0 10	1.5 10	987.52	(7/2$^+$,9/2$^+$)	47.075	(9/2$^+$)			%Iγ=0.26 18
[x]945.2 5	0.3 1							%Iγ=0.053 19
953 2	0.10 5	1024.23	(7/2$^+$,9/2$^-$)	70.42	(7/2$^-$)			%Iγ=0.018 9
957.59 15	5.8 6	957.534	(9/2)$^+$	0.0	5/2$^+$			%Iγ=1.02 17
[x]964.0 7	0.25 10							%Iγ=0.044 19
968.5 7	0.2 1	987.52	(7/2$^+$,9/2$^+$)	19.198	7/2$^+$			%Iγ=0.035 18
[x]972.6 5	0.5 2							%Iγ=0.09 4
[x]975 1	1.5 10							%Iγ=0.26 18
977.2[d] 2	2.3[d] 10	1024.23	(7/2$^+$,9/2$^-$)	47.075	(9/2$^+$)			%Iγ=0.40 18
977.2[de]	[d]	1065.23		87.65	(11/2$^+$)			
[x]982.4 7	0.5 2							%Iγ=0.09 4
987.60 10	7.8 8	987.52	(7/2$^+$,9/2$^+$)	0.0	5/2$^+$			%Iγ=1.37 23
996.0 3	1.2 2	1024.23	(7/2$^+$,9/2$^-$)	27.95	(5/2$^-$)			%Iγ=0.21 5
[x]1001.0 10	0.15 10							%Iγ=0.026 18

$^{245}_{95}Am_{150}$-7

$\gamma(^{245}Am)$ (continued)

E_γ[†]	I_γ[#b]	E_i(level)	J_i^π	E_f	J_f^π	Comments
1005.1 *3*	1.6 *6*	1024.23	(7/2$^+$,9/2$^-$)	19.198	7/2$^+$	%Iγ=0.28 *11*
[x]1007.31 *15*	2.4 *6*					%Iγ=0.42 *12*
[x]1013.2 *3*	0.6 *2*					%Iγ=0.11 *4*
1018.33 *20*	6.1 *8*	1065.23		47.075	(9/2$^+$)	%Iγ=1.07 *20*
1023.32 *20*	3.2 *6*	1111.18		87.65	(11/2$^+$)	%Iγ=0.56 *13*
[x]1028.2 *10*	0.10 *4*					%Iγ=0.018 *7*
[x]1036.2 *8*	0.05 *2*					%Iγ=0.009 *4*
1040.2 *12*	0.04 *2*	1111.18		70.42	(7/2$^-$)	%Iγ=0.007 *4*
[x]1042.4 *8*	0.09 *3*					%Iγ=0.016 *6*
1051.3 *8*	0.03 *1*	1185.6		134.49	(13/2$^+$)	%Iγ=0.0053 *19*
[x]1079.1 *10*	0.03 *1*					%Iγ=0.0053 *19*
1083.9 *5*	0.20 *4*	1111.18		27.95	(5/2$^-$)	%Iγ=0.035 *9*
[x]1093.7 *7*	0.08 *3*					%Iγ=0.014 *6*
1097.9 *7*	0.10 *3*	1185.6		87.65	(11/2$^+$)	%Iγ=0.018 *6*
1111.9 *5*	0.32 *4*	1111.18		0.0	5/2$^+$	%Iγ=0.056 *10*
1138.5 *5*	0.25 *4*	1185.6		47.075	(9/2$^+$)	%Iγ=0.044 *9*
1166.3 *5*	0.30 *4*	1185.6		19.198	7/2$^+$	%Iγ=0.053 *10*

[†] From 1968WaZZ except as noted.

[‡] From 1979Bo30.

[#] From 1968WaZZ.

[@] From ce(K) data listed in comments, except as noted. The evaluator deduced the ce(K) data from Ice(K) (derived from Iγ and α(K)exp in 1968Da02) and Iγ (1968WaZZ). The ce(K) data was re-normalized to the strongest 327.428-keV transition with α(K)(327)= 66 *23* (BrIcc).

[&] From ce data (1968Da02) as listed in comments.

[a] Additional information 1.

[b] For absolute intensity per 100 decays, multiply by 0.176 *24*.

[c] Multiply placed with undivided intensity.

[d] Multiply placed with intensity suitably divided.

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

[x] γ ray not placed in level scheme.

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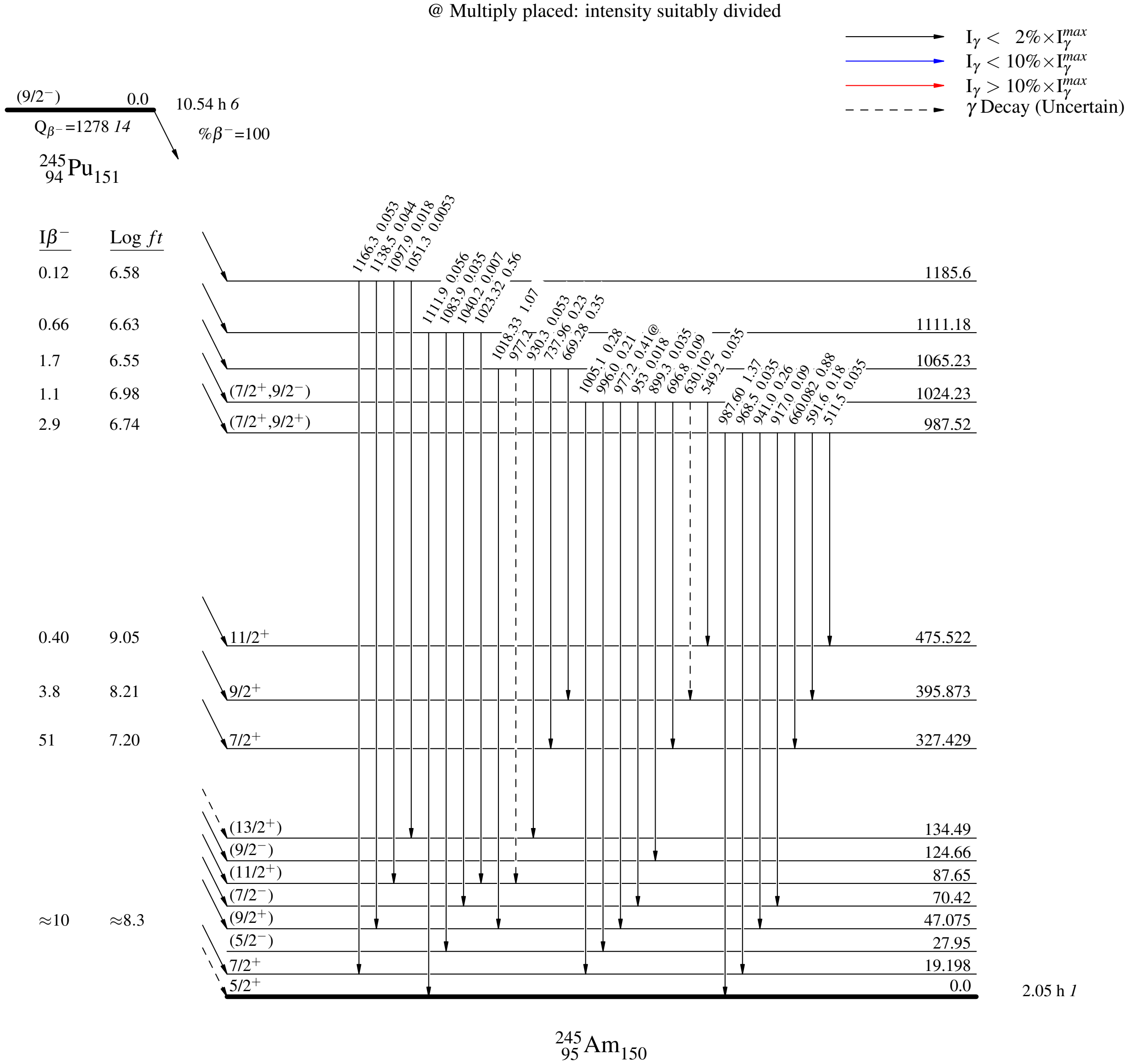
^{245}Pu β^- decay 1968Da02,1968WaZZ

Decay Scheme

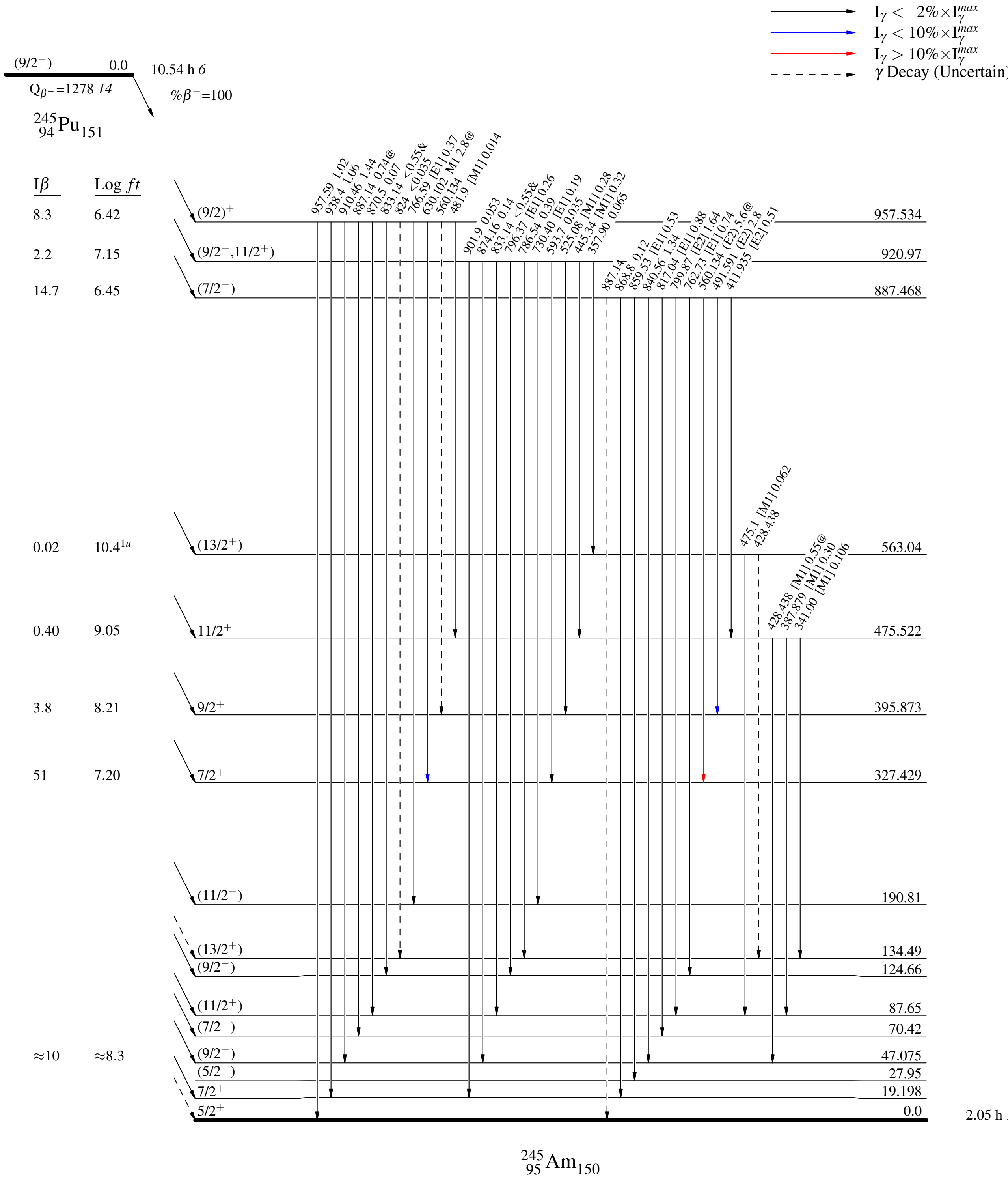
Intensities: I_γ per 100 parent decays
@ Multiply placed: intensity suitably divided



^{245}Pu β^- decay 1968Da02,1968WaZZ

Decay Scheme (continued)

Intensities: I_γ per 100 parent decays
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

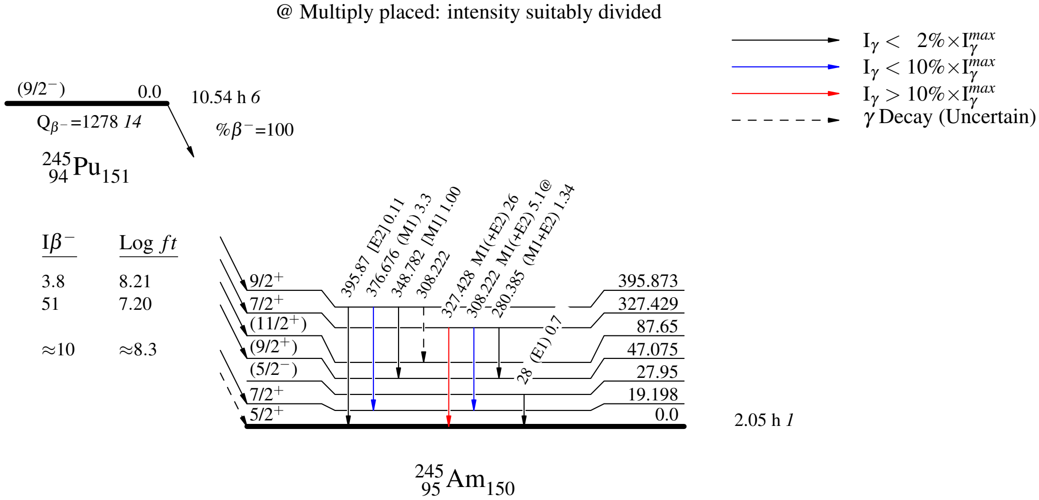


^{245}Pu β^- decay 1968Da02,1968WaZZ

Decay Scheme (continued)

Intensities: I_γ per 100 parent decays
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend



^{245}Pu β^- decay 1968Da02,1968WaZZ