^{242}Am IT decay (141 y)

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. J. Martin, C. D. Nesaraja	NDS 186, 261 (2022)	31-Dec-2021

Parent: ^{242}Am: E=48.603 *9*; $J^\pi=5^-$; $T_{1/2}$=141 y *2*; %IT decay=99.550 *10*

^{242}Am Levels

E(level)	J^π[†]	$T_{1/2}$[†]
0.0	1^-	16.01 h *2*
48.622 *30*	5^-	141 y *2*

[†] From Adopted Levels.

$\gamma(^{242}Am)$

E_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[†]	$I_{(\gamma+ce)}$[‡]	Comments
48.63 *5*	48.622	5^-	0.0	1^-	E4	7.01×10^5 *11*	100	ce(L)/(γ+ce)=0.473 *8*; ce(M)/(γ+ce)=0.378 *7* ce(N)/(γ+ce)=0.1198 *25*; ce(O)/(γ+ce)=0.0272 *6*; ce(P)/(γ+ce)=0.00270 *6*; ce(Q)/(γ+ce)=4.07×10^{-6} *9* α(L)=3.31×10^5 *5*; α(M)=2.65×10^5 *4* α(N)=8.40×10^4 *13*; α(O)=1.908×10^4 *30*; α(P)=1891 *30*; α(Q)=2.86 *4* E_γ: From 1960As05 in IT decay. Mult.: from L- and M- subshell ratios, measured by 1960As05. L1:L2:L3:M1:M2:M3:M4:M5:N1:N2:N3:N45:O= <6:17:18:<2:13:10:8:10:<2:6:4:8:6. Uncertainties on relative subshell intensities are ≈30% (1960As05).

[†] Additional information 1.
[‡] For absolute intensity per 100 decays, multiply by 0.99550 *10*.

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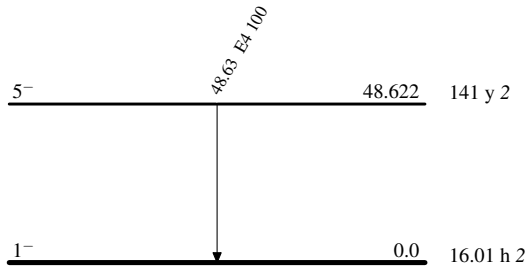
Decay Scheme

%IT=99.550 *10*



$^{242}_{95}Am_{147}$