^{242}Pu(d,pγ) E=16 MeV 1975Ya03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja, E. A. Mccutchan	NDS 121, 695 (2014)	30-Sep-2013

1975Ya03: 16 MeV pulsed deuterons beam from the Argonne National Laboratory tandem Van de Graaff bombarded a 0.5 g ^{242}Pu target. Gammas detected with a 11-cm^3 intrinsic Ge detector with FWHM =1.1 keV for 122-keV γ. Lifetime of E2 transitions between 1/2$^-$[631] and 5/2$^+$[622] single particle states measured in ^{243}Pu by pulsed beam technique.

^{243}Pu Levels

E(level)†	Jπ†	$T_{1/2}$	Comments
0.0	7/2$^+$		
287.46 *19*	5/2$^+$		
383.64 *25*	(1/2$^+$)	0.33 μs *3*	B(E2)=10.5 e^{2}fm^4 recalculated by evaluator using α=18.9 value of BrICC (2008Ki07).

† From Adopted Levels.

γ(^{243}Pu)

E_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α†	Comments
96.2 *2*	383.64	(1/2$^+$)	287.46	5/2$^+$	[E2]	18.9 *4*	α(L)=13.72 *24*; α(M)=3.84 *7* α(N)=1.056 *18*; α(O)=0.249 *5*; α(P)=0.0396 *7*; α(Q)=0.0001353 *22*
287.8	287.46	5/2$^+$	0.0	7/2$^+$			

† Additional information 1.

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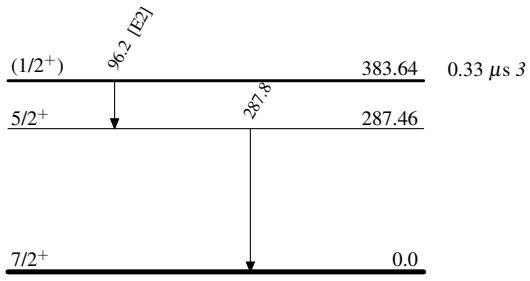
Level Scheme



$^{243}_{94}Pu_{149}$