^{75}As IT decay (17.62 ms) 1998Hw05,1994Sm09,1980Jo11

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Alexandru Negret, Balraj Singh	NDS 114, 841 (2013)	30-Jun-2013

Parent: ^{75}As: E=303.9243 *8*; $J^{\pi}=9/2^{+}$; $T_{1/2}$=17.62 ms *23*; %IT decay=100.0

Measured $T_{1/2}$.

Other $T_{1/2}$ measurements: 1984Br30, 1972Br53, 1969Ku08, 1969Fa13 (and 1969FaZY), 1967Iv04, 1966Me02, 1966La25, 1961Sc09, 1961Mo06, 1959Gl56, 1958Du80, 1957Sc11.

Others: 1984Va12, 1977Go15, 1964Re10.

^{75}As Levels

E(level)†	J^{π}‡	$T_{1/2}$	Comments
0.0	$3/2^{-}$		
198.61	$1/2^{-}$		
279.54	$5/2^{-}$		
303.92	$9/2^{+}$	17.62 ms *23*	$T_{1/2}$: from 1998Hw05 (correlation counting method). Others: 16.2 ms *3* (1994Sm09), 16.9 ms *6*, 18.2 ms *10* (1984Br30), 16.79 ms *15* (1980Jo11), 17.53 ms *8* (1972Br53), 16.5 ms *3* (1969Ku08), 1969Fa13 (and 1969FaZY), 16.3 ms *16* (1967Iv04), 17.5 ms *10* (1966Me02), 15.4 ms *6* (1966La25), 16.8 ms *4* (1961Sc09), 15.6 ms *4* (1961Mo06), 17.0 ms *10* (1959Gl56), 17.0 ms *10* (1958Du80), 17.0 ms *7* (1957Sc11). 1998Hw05 obtain 16.5 ms by analyzing data in the same manner as 1994Sm09. Weighted average of all values is 16.9 ms *2*.

† Rounded values from Adopted Levels.

‡ From Adopted Levels.

^{75}As IT decay (17.62 ms) 1998Hw05,1994Sm09,1980Jo11 (continued)

γ(^{75}As)

E_γ †	I_γ #a	E_i(level)	J_i^π	E_f	J_f^π	Mult. @	δ @	α &	$I_{(\gamma+ce)}$ ‡a	Comments
24.38	0.386	303.92	$9/2^+$	279.54	$5/2^-$	M2(+E3)	0.013 *13*	205 *5*	80.2 *44*	ce(K)/(γ+ce)=0.806 *14*; ce(L)/(γ+ce)=0.162 *10*; ce(M)/(γ+ce)=0.0255 *17*; ce(N+)/(γ+ce)=0.00177 *9*
80.94	0.009	279.54	$5/2^-$	198.61	$1/2^-$	E2		1.736	0.025 *8*	ce(K)/(γ+ce)=0.543 *5*; ce(L)/(γ+ce)=0.0788 *13*; ce(M)/(γ+ce)=0.01190 *20*; ce(N+)/(γ+ce)=0.000779 *13*
198.61	0.025	198.61	$1/2^-$	0.0	$3/2^-$	M1+E2	0.389 *17*	0.0208 *6*	0.025 *8*	ce(K)/(γ+ce)=0.0180 *5*; ce(L)/(γ+ce)=0.00198 *6*; ce(M)/(γ+ce)=0.000301 *9*; ce(N+)/(γ+ce)=2.24×10^{-5} *6* ce(N)/(γ+ce)=2.24×10^{-5} *6*
279.54	79.5	279.54	$5/2^-$	0.0	$3/2^-$	M1+E2	−0.49 *3*		80.2 *44*	ce(K)/(γ+ce)=0.00744 *22*; ce(L)/(γ+ce)=0.000800 *25*; ce(M)/(γ+ce)=0.000122 *4*; ce(N+)/(γ+ce)=9.1×10^{-6} *3*
303.92	18.8	303.92	$9/2^+$	0.0	$3/2^-$	E3		0.0538	19.8 *11*	ce(K)/(γ+ce)=0.0446 *6*; ce(L)/(γ+ce)=0.00561 *8*; ce(M)/(γ+ce)=0.000853 *12*; ce(N+)/(γ+ce)=5.98×10^{-5} *9* Mult.: from ^{75}Se ε decay.

† Rounded values from Adopted Gammas.
‡ Based on branching ratio of γ rays in Adopted Gammas assuming Iγ+ce=100 for 303.9 level.
# Deduced from I(γ+ce) and α.
@ From Adopted Gammas.
& Additional information 1.
a Absolute intensity per 100 decays.

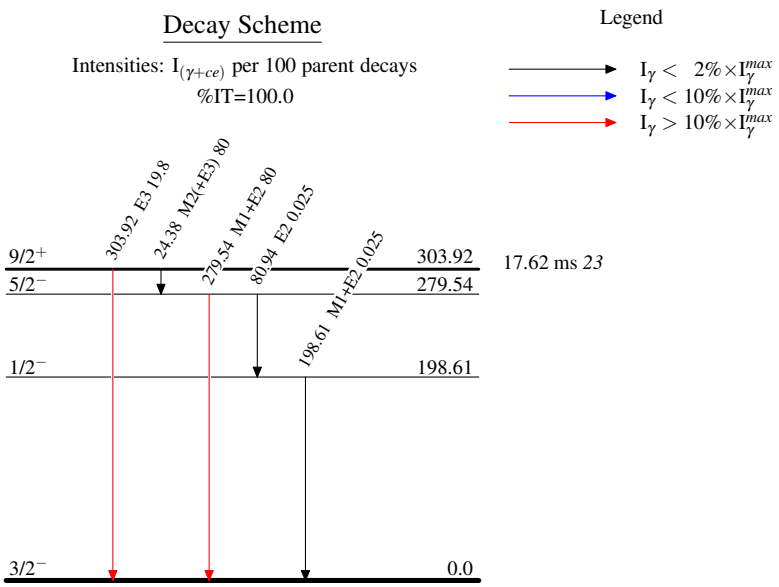
$^{75}_{33}As_{42}$-2

^{75}As IT decay (17.62 ms) 1998Hw05,1994Sm09,1980Jo11

Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays

%IT=100.0



$^{75}_{33}As_{42}$