^{75}Ge β^- decay (82.78 min) 1979Bh07

History

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

Parent: ^{75}Ge: E=0; $J^\pi=1/2^-$; $T_{1/2}$=82.78 min *4*; Q(β^-)=1177.2 *9*; %β^- decay=100.0
^{75}Ge-J^π,$T_{1/2}$: From ^{75}Ge Adopted Levels.
^{75}Ge-Q(β^-): From 2012Wa38.
Measured γ, $\gamma\gamma$, $\gamma\gamma$(t).
Others: 1974Ve14, 1973McZP, 1972De67, 1970Si21, 1970Az01, 1968Ng02, 1968Re04, 1967Ch36, 1958Va02, 1955Sc09, 1952Sm51, 1948De05, 1941Se03.
β and $\beta\gamma$ data are from 1955Sc09.

^{75}As Levels

E(level)	J^π†	$T_{1/2}$	Comments
0.0	$3/2^-$		
198.60 *9*	$1/2^-$	0.97 ns *6*	$T_{1/2}$: from $\gamma\gamma$(t) (1970Az01). Other: 0.75 ns *15* (1970Si21).
264.60 *9*	$3/2^-$	<0.08 ns	$T_{1/2}$: from $\gamma\gamma$(t) (1970Si21).
279.7 *3*	$5/2^-$		
400.6? *10*	$5/2^+$		E(level): from 1974Ve14.
468.80 *18*	$1/2^-$		
617.69 *14*	$1/2^-$,$3/2^-$		

† From Adopted Levels.

β^- radiations

E(decay)†	E(level)	Iβ^-‡	Log *ft*	Comments
(559.5 *9*)	617.69	0.32 *4*	6.42 *6*	av Eβ=181.58 *35*
≈460	468.80	0.225 *24*	6.94 *5*	av Eβ=239.51 *37*
(776.6 *14*)	400.6?	<0.001	>9.8[1*u*]	av Eβ=290.62 *55*
919 *20*	264.60	11.5 *12*	5.63 *5*	av Eβ=322.78 *38*
975 *20*	198.60	0.86 *10*	6.87 *5*	av Eβ=350.45 *39*
1188 *20*	0.0	87.1 *13*	5.175 *7*	av Eβ=435.52 *39*

† From 1955Sc09.
‡ Absolute intensity per 100 decays.

γ(^{75}As)

Iγ normalization: from Iγ(265γ)=11.4% 11 based on B(265γ) coin/total β (1955Sc09).

E_γ‡	I_γ‡&	E_i(level)	J_i^π	E_f	J_f^π	Mult.†	δ†@	α#	Comments
66.0 *2*	1.00 *5*	264.60	$3/2^-$	198.60	$1/2^-$	M1+E2	+0.066 *10*	0.299 *7*	α(K)=0.265 *6*; α(L)=0.0297 *9*; α(M)=0.00453 *13* α(N)=0.000337 *9*
136	<0.007	400.6?	$5/2^+$	264.60	$3/2^-$	E1		0.0295	α(K)=0.0263 *4*; α(L)=0.00274 *4*; α(M)=0.000415 *6* α(N)=3.10×10^{-5} *5* E_γ: from 1974Ve14. I_γ: 1979Bh07 estimate Iγ<0.007 which

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^{75}Ge β^- decay (82.78 min) 1979Bh07 (continued)

$\gamma(^{75}As)$ (continued)

E_γ[‡]	I_γ[‡&]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[†]	δ[†@]	α[#]	Comments
									disagrees with Iγ=0.08 *2* from 1974Ve14.
198.6 *1*	10.4 *3*	198.60	1/2$^-$	0.0	3/2$^-$	M1+E2	0.389 *17*	0.0208 *6*	α(K)=0.0184 *5*; α(L)=0.00202 *6*; α(M)=0.000307 *9* α(N)=2.28×10^{-5} *7*
204.26	<0.01	468.80	1/2$^-$	264.60	3/2$^-$				
264.6 *1*	100	264.60	3/2$^-$	0.0	3/2$^-$	M1+E2	−0.07 *2*	0.00718 *11*	α(K)=0.00640 *10*; α(L)=0.000675 *11*; α(M)=0.0001031 *16* α(N)=7.83×10^{-6} *12*
270.2 *4*	0.03 *1*	468.80	1/2$^-$	198.60	1/2$^-$				
279.7 *4*	0.05 *1*	279.7	5/2$^-$	0.0	3/2$^-$	M1+E2	−0.49 *3*	0.0084 *3*	α(K)=0.00749 *23*; α(L)=0.00081 *3*; α(M)=0.000123 *4* α(N)=9.2×10^{-6} *3*
338.0 *4*	0.04 *1*	617.69	1/2$^-$,3/2$^-$	279.7	5/2$^-$				
353.0 *5*	0.18 *2*	617.69	1/2$^-$,3/2$^-$	264.60	3/2$^-$				
419.1 *2*	1.62 *6*	617.69	1/2$^-$,3/2$^-$	198.60	1/2$^-$	M1(+E2)	<0.35	0.00246 *12*	α(K)=0.00219 *11*; α(L)=0.000230 *12*; α(M)=3.50×10^{-5} *18* α(N)=2.66×10^{-6} *13*
468.8 *2*	1.96 *8*	468.80	1/2$^-$	0.0	3/2$^-$				
617.7 *2*	1.00 *5*	617.69	1/2$^-$,3/2$^-$	0.0	3/2$^-$	M1,E2		0.00116 *20*	α(K)=0.00104 *18*; α(L)=0.000108 *20*; α(M)=1.7×10^{-5} *3* α(N)=1.25×10^{-6} *22*

[†] From Adopted Gammas.
[‡] From 1979Bh07, unless otherwise stated.
[#] Additional information 1.
[@] If No value given it was assumed δ=1.00 for E2/M1, δ=1.00 for E3/M2 and δ=0.10 for the other multipolarities.
[&] For absolute intensity per 100 decays, multiply by 0.114 *11*.

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Decay Scheme

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