^{24}Al IT decay (130.7 ms) 1979Ho08

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia, Anagha Chakraborty	NDS 186, 2 (2022)	31-Mar-2022

Parent: ^{24}Al: E=425.81 *10*; J^π=1$^+$; $T_{1/2}$=130.7 ms *13*; %IT decay=69.6 *7*

^{24}Al-E,J^π,$T_{1/2}$: From ^{24}Al Adopted Levels.

^{24}Al also decays $\varepsilon\alpha$ (0.028% *6*).

1979Ho08: Source was produced from ^{24}Mg(p,n) reaction, E=20 MeV. Ge(Li) and Si(Au) detectors. Measured Eγ, Iγ, delayed α spectra. Deduced excited levels, spin, parity, half-life, γ-branching, etc.

All data from 1979Ho08.

^{24}Al Levels

E(level)	J^π[†]	$T_{1/2}$[†]
0	4$^+$	2.053 s *4*
425.81 *10*	1$^+$	130.7 ms *13*

[†] From Adopted Levels.

γ(^{24}Al)

E_γ	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[†]	$I_{(\gamma+ce)}$[‡]	Comments
425.8 *1*	99.89	425.81	1$^+$	0	4$^+$	[M3]	1.14×10^{-3}	100	α(K)=0.001067 *15*; α(L)=7.36×10^{-5} *11*; α(M)=3.90×10^{-6} *6* E_γ: Others: 426 (1979Sh11), 439 *2* (1966Ar02 – appears to be in the decay of ^{23}Mg (11.3 s). I_γ: from I(γ+ce) and α.

[†] Additional information 1.

[‡] For absolute intensity per 100 decays, multiply by 0.696 *7*.

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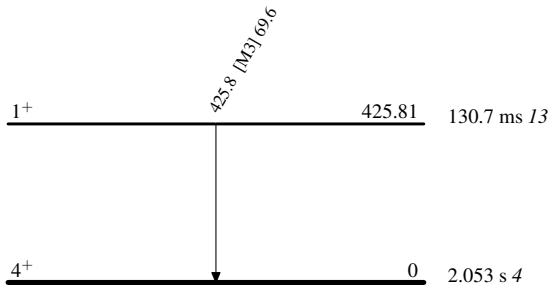
Decay Scheme

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

%IT=69.6 *7*



$^{24}_{13}Al_{11}$