^{85}Kr IT decay (4.480 h)   1980Me06,1970Wo08

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 116, 1 (2014)	31-Dec-2013

Parent: ^{85}Kr: E=304.87 *2*; J$^{\pi}$=1/2$^-$; T$_{1/2}$=4.480 h *8*; %IT decay=21.2 *5*

^{85}Kr-J$^{\pi}$,T$_{1/2}$: From ^{85}Kr Adopted Levels.

^{85}Kr-%IT decay: From Ti(304.87γ)/[Ti(304.87γ+Ti(151γ+281γ+731γ)]; 151, 281 and 731 γ rays are from ^{85}Kr β^- decay to ^{85}Rb.

1980Me06: Ge(Li) detectors, measured γ spectra.

1970Wo08: Ge(Li) detectors, magnetic spectrometers, measured γ and conversion spectra.

Others: 1972McZC, 1955Th01, 1952Be55.

^{85}Kr Levels

E(level)	J$^{\pi\dagger}$	T$_{1/2}$†
0.0	9/2$^+$	10.739 y *14*
304.87 *2*	1/2$^-$	4.480 h *8*

† From Adopted Levels.

γ(^{85}Kr)

Iγ normalization: I(γ+ce) of 304.87γ=100.

E$_{\gamma}$	I$_{\gamma}$†	E$_i$(level)	J$^{\pi}_i$	E$_f$	J$^{\pi}_f$	Mult.	$\alpha^{\ddagger}$	Comments
304.87 *2*	18.7 *2*	304.87	1/2$^-$	0.0	9/2$^+$	M4	0.511	%Iγ=14.0 *3* α(K)= 0.434; α(L)= 0.0658; α(M)=0.01089; α(N)=0.001043 α(exp)=0.509 *24*; α(K)exp=0.432 *20*; α(L)exp=0.064 *3*; α(M)exp=0.013 *1* (1970Wo08) E$_{\gamma}$: from 1980Me06. Other: 304.47 keV *5* (1970Wo08). I$_{\gamma}$: relative to 100.0 for 151.195γ from ^{85}Kr β^- decay. α(K)exp,α(L)exp,α(M)exp: determined by peak-to-β spectrum method (1970Wo08).

† For absolute intensity per 100 decays, multiply by 0.750 *18*.

‡ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

<u>^{85}**Kr IT decay (4.480 h)**　　**1980Me06,1970Wo08**</u>

<u>Decay Scheme</u>

Intensities: I$_{(\gamma+ce)}$ per 100 parent decays
%IT=21.2 *5*

1/2⁻ ──────────────── 304.87　4.480 h *8*

304.87 M4 21.2

9/2⁺ ──────────────── 0.0　10.739 y *14*

$^{85}_{36}$Kr$_{49}$