^{107}In IT decay (50.4 s) 1976Hs01,1973Ny03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 109, 1383 (2008)	1-Mar-2008

Parent: ^{107}In: E=678.5 *3*; $J^\pi=1/2^-$; $T_{1/2}$=50.4 s *6*; %IT decay=100.0

^{107}In-%IT decay: upper limit <10% for direct decay to ^{107}Cd (1973Ny03).

Source: ^{107}Ag(^{3}He,3n) E=30 MeV (1976Hs01) helium-jet transfer, natural target; ^{106}Cd(d,nγ) E=8 MeV, beam off (1973Ny03,1973Jo06) on-line ce s.

^{107}In Levels

E(level)	J^π†	$T_{1/2}$	Comments
0.0	$9/2^+$	32.4 min *3*	
678.5	$1/2^-$	50.4 s *6*	$T_{1/2}$: 50.4 s *6* (1976Hs01) γ-decay curve. Other: 51.8 s *20* (1973Ny03).

† From Adopted Levels.

γ(^{107}In)

Iγ normalization: from Ti(678γ)=100 and α.

E_γ	I_γ†	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α‡	Comments
678.4 *3*	100	678.5	$1/2^-$	0.0	$9/2^+$	M4	0.060	α(K)=0.0498; α(L)=0.0077; α(M+..)=0.0025 α(K)exp=0.074 *14*; α(L)exp=0.011 *3* (1984Ve01) α: α(K)exp measured using a mini-orange spect. α(K)exp=0.049 *6* ce(K)/Iγ (1973Ny03) normalized to α(K)exp(662γ,^{137}Ba)=0.092. E_γ: av: 678.6 *4* (1972Ri16), 678.3 *3* (1975Di12). Others: 678 (1973Ny03), 678.8 (1976Hs01). Mult.: based on α(K)exp and Hf(M4) systematics.

† For absolute intensity per 100 decays, multiply by 0.943 *2*.

‡ 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.

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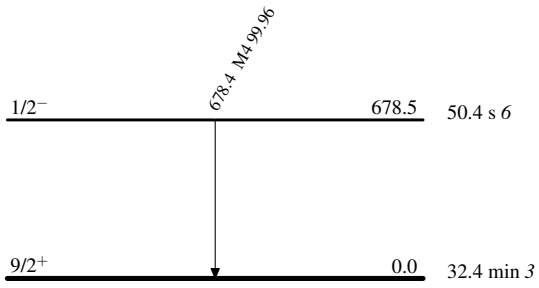
Decay Scheme

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

%IT=100.0



$^{107}_{49}In_{58}$