^{121}Te IT decay 1971Ed03,1972Ka61,1975Me23

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. Ohya	NDS 111, 1619 (2010)	20-Jan-2009

Parent: ^{121}Te: E=293.974 *22*; $J^{\pi}=11/2^{-}$; $T_{1/2}$=164.2 d *8*; %IT decay=88.6 *11*
^{121}Te-$T_{1/2}$: from Adopted Levels.
1971Ed03: ^{123}Sb(p,3n), magnetic spectrometer, ce-ce(θ), ceγ(θ).
1972Ka61: ^{120}Te(n,γ), magnetic spectrometer, ce.
1975Me23: ^{120}Te(n,γ), semi γ.
Others: 1950Ka04, 1956Go23, 1963Sc12, 1964Ch08, 1968Ma52.
See also ^{121}Te ε decay (154 d).

^{121}Te Levels

E(level)	J^{π}†	$T_{1/2}$	Comments
0.0	$1/2^{+}$	19.17† d *4*	
212.19 *3*	$3/2^{+}$	0.062 ns *15*	$T_{1/2}$: from (ce 81γ)(ce 212γ)(t) centroid shift scin-scin (1963Sc12).
293.98 *3*	$11/2^{-}$	164.2† d *8*	

† From Adopted Levels.

^{121}Te IT decay 1971Ed03,1972Ka61,1975Me23 (continued)

$\gamma(^{121}Te)$

Iγ normalization: from I(γ+ce 212γ)=100.

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α[#]	$I_{(\gamma+ce)}$[‡]	Comments
81.788 *15*	0.0626 *6*	293.98	11/2$^-$	212.19	3/2$^+$	M4		1735	108.69 *9*	ce(K)/(γ+ce)=0.390 *6*; ce(L)/(γ+ce)=0.472 *7*; ce(M)/(γ+ce)=0.1135 *22*; ce(N+)/(γ+ce)=0.0237 *5* ce(N)/(γ+ce)=0.0218 *5*; ce(O)/(γ+ce)=0.00187 *4* $I_{(\gamma+ce)}$: from an intensity balance at the 212 level. I_γ: from TI and α. K:L:M:N=0.74:1.0:0.235:0.066 (1972Ka31,1972Ka61) K:L:M=0.82:1.0:0.23 (1968Ma52) K:L:M:N=0.83:1.0:0.24:0.059 (1968Ha53). Additional information 1.
212.189 *27*	100	212.19	3/2$^+$	0.0	1/2$^+$	M1+E2	+0.226 *8*	0.0869	108.69 *9*	ce(K)/(γ+ce)=0.0687 *9*; ce(L)/(γ+ce)=0.00903 *13*; ce(M)/(γ+ce)=0.00181 *3*; ce(N+)/(γ+ce)=0.000395 *6* ce(N)/(γ+ce)=0.000356 *6*; ce(O)/(γ+ce)=3.83×10^{-5} *6* Mult.: from α(K)exp=0.0768 *17* (1971Ed03), α(K)exp=0.0842 *14* (1968Ma52) L1:L2:L3=100:8.1:3.7 (1964Ch08). 1968Ma52 discussed the existence of dynamic penetration effect (λ=7 *1*) in calculation of conversion coefficients. 1971Ed03 deduced λ=−0.7 *17* from ce-ce(θ), ceγ(θ). δ: from 1971Ed03. Others: 0.230 (1968Ma52), 0.224 (1964Ch08).

[†] From 1975Me23. An additional uncertainty of 10 eV should be added in quadrature to the quoted uncertainties to allow for uncertainties in calibration.
[‡] For absolute intensity per 100 decays, multiply by 0.815 *10*.
[#] 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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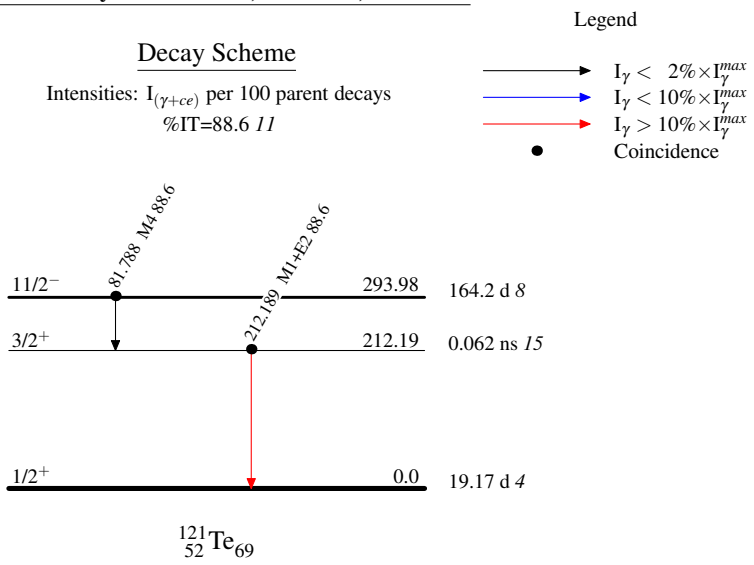
Decay Scheme

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

%IT=88.6 *11*



$^{121}_{52}Te_{69}$