^{125}Te IT decay   1976Wa13

	Type	Author	History Citation	Literature Cutoff Date
	Full Evaluation	J. Katakura	NDS 112, 495 (2011)	1-Jan-2010

Parent: ^{125}Te: E=144.775 *9*; J$^{\pi}$=11/2$^-$; T$_{1/2}$=57.40 d *15*; %IT decay=100.0

1998Sa36,1999Sa73: HPGe, mini-orange spectrometer, Ice.

1976Wa13: Compton-suppression spectrometer, semi γ.

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Measurements α(K)exp,  subshell ratio, α(exp):
    ce, magnetic spectrometer: 1952Bo16, 1959Na06, 1972Ka61, 1972Br02,
                               1982Br16, 1989Da19
    Xγ-coin:  1950Fr60, 1952Bo16, 1977So06, 1982Mu02
    (Auger E)(ce)-coin: 1970Ma51;
Mossbauer spectroscopy: 1972Si21, 1972VaYZ, 1973Bo21, 1973Ob06, 1974De49,
                        1974De49, 1977La01, 1977La03
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^{125}Te Levels

E(level)[†]	J$^{\pi}$	T$_{1/2}$	Comments
0.0	1/2$^+$		
35.504 *15*	3/2$^+$	1.48 ns *1*	T$_{1/2}$: From ^{125}Sb β^- decay. Others: 1.45 ns *3* (1970Ma20), 1.58 ns *15* (1953Gr07), 1.3 ns *4* (1958Al98).
144.780 *22*	11/2$^-$	57.40 d *15*	T$_{1/2}$: From Adopted Levels.

[†] From a least-squares fit to Eγ's by evaluator.

γ(^{125}Te)

Iγ normalization: From I(γ+ce)=100 from 144.73 level.

Eγ[‡]	Iγ[#@]	E$_i$(level)	J$_i^{\pi}$	E$_f$	J$_f^{\pi}$	Mult.	δ	α[†]	Comments
35.504 *15*	7.30 *7*	35.504	3/2$^+$	0.0	1/2$^+$	M1+E2	0.031 *3*	13.69	α(K)=11.68 *17*; α(L)=1.594 *25*; α(M)=0.319 *5*; α(N+..)=0.0696 *11* α(N)=0.0629 *10*; α(O)=0.00673 *10* Mult.,δ: From adopted gammas. α(K)exp=12.1 *7* (1982Mu02), 11.8 *3* (if α=13.65 *55*) (1969Ma46). L1:L2:L3=100 *1*:9.54 *18*:2.3 *5* (1982Br16). See also 1982Br16 for other subshell α.
109.276 *15*	0.280 *3*	144.780	11/2$^-$	35.504	3/2$^+$	M4		356	α(K)=185 *3*; α(L)=133.0 *19*; α(M)=30.9 *5*; α(N+..)=6.49 *9* α(N)=5.96 *9*; α(O)=0.528 *8* Mult.: From α data. α(exp)=357 *11* (1977So06); 304 *17* (if α(35.5 keV)=14.0) (1982Mu02); 318 *40* (1998Sa36). α(K)exp=169 *7* (weighted av of 167 *11*, 171 *10* and 168 *22*) (1982Mu02); 166 *9* (1998Sa36), 166 *11* (1998Sa55). α(M)exp=22.4 *18* (1998Sa36). K/L=1.28 *9* (1998Sa36). L1:L2:L3=0.784 *5*:0.1761 *18*:1.0 (1989Da19). Others: 1972Br02. See 1989Da19 for M, N subshell ratios.

^{125}Te IT decay   1976Wa13 (continued)

$\gamma(^{125}$Te) (continued)

$E_\gamma^\ddagger$	$I_\gamma^{\#@}$	E_i(level)	J_i^π	E_f	J_f^π	Mult.	$\alpha^\dagger$	Comments
144.780 25	3.9×10^{-7}	144.780	$11/2^-$	0.0	$1/2^+$	[E5]	259	α(K)=39.5 6; α(L)=171.0 24; α(M)=40.1 6; α(N+..)=7.97 12 α(N)=7.42 11; α(O)=0.547 8 I_γ: From 1.4×10^{-4} relative to I(109γ)=100 (1976Wa13). Mult.: From the level scheme.

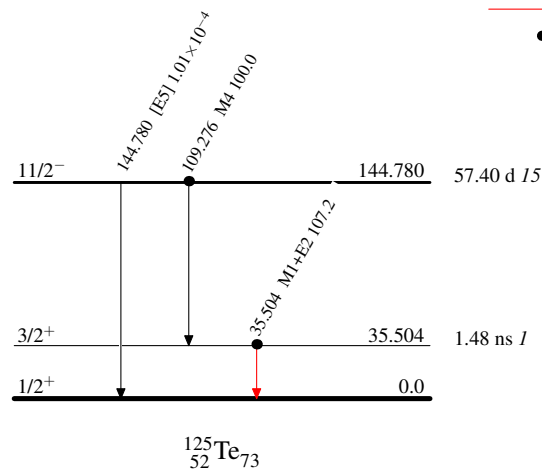† Additional information 1.
‡ From 1976Wa13.
$^\#$ From I(γ+ce)=100 from each level and α.
$^@$ Absolute intensity per 100 decays.

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Decay Scheme

Intensities: I$_{(\gamma+ce)}$ per 100 parent decays
%IT=100.0

Legend

I$_\gamma <$ 2%×I$_\gamma^{max}$
I$_\gamma <$ 10%×I$_\gamma^{max}$
I$_\gamma >$ 10%×I$_\gamma^{max}$
● Coincidence

$^{125}_{52}$Te$_{73}$