^{112}Tc IT decay 2010Br15,2012Ka36

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. Lalkovski, F. G. Kondev	NDS 124, 157 (2015)	1-Aug-2014

Parent: ^{112}Tc: E=350.0 *15*; J^π=(5^+); $T_{1/2}$=150 ns *17*; %IT decay=100.0

2010Br15: Facility: GSI-Darmstadt; Target: 1 g/cm^2 thick ^{9}Be; Beam: ^{238}U, E(^{238}U)=750 MeV/A; Detectors: Fragment Separator, scintillator detectors, ionization chambers, multiwire ionization chambers, RISING γ-ray array; Measured: Eγ, Iγ, $T_{1/2}$; Deduced: level scheme.

2012Ka36: Facility: RIBF at RIKEN; Beam: E(^{238}U)=345 MeV/nucleon; Detectors: BigRIPS, ZeroDegree spectrometer, energy degraders, particle detectors, aluminium stopper, three clover-type HPGe detectors; Measured: ToF, γ, γ-γ, Eγ, Iγ; Deduced: Z, A/Q, ^{112}Tc level energies, $T_{1/2}$.

Others: 2009Fo05.

^{112}Tc Levels

E(level)†	J^π†	$T_{1/2}$†	Comments
0	(2^+)	271 ms *15*	
258.0 *10*	(3^+)		
350.0 *15*	(5^+)	150 ns *17*	$T_{1/2}$: From 258γ(t) in 2010Br15. Others: 218 ns *+60–43* in (2012Ka36) and<500 ns using 258γ(t) in 2009Fo05.

† From the Adopted Levels.

γ(^{112}Tc)

E$_\gamma$†	I$_\gamma$†	E$_i$(level)	J^π_i	E$_f$	J^π_f	Mult.‡
92 *1*	100	350.0	(5^+)	258.0	(3^+)	[E2]
258 *1*	91 *9*	258.0	(3^+)	0	(2^+)	[M1]

† From 2010Br15. The relative placement of the two transitions, observed in coinc., is tentative.

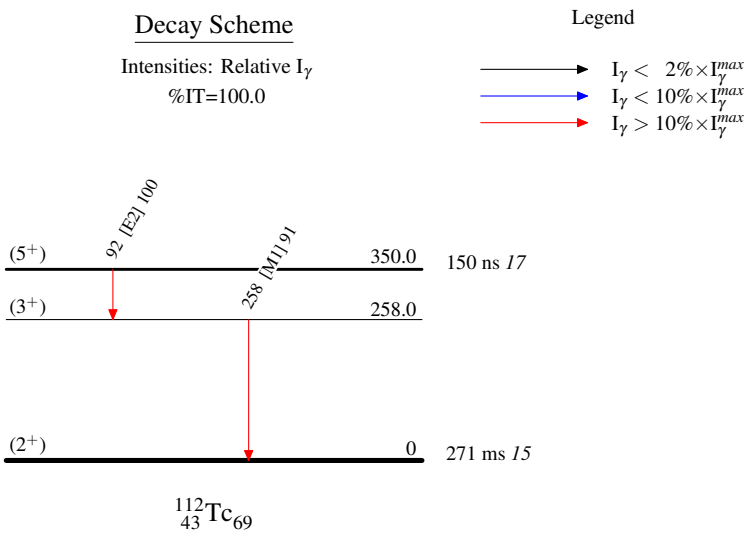
‡ From the proposed decay scheme.

^{112}Tc IT decay 2010Br15,2012Ka36

Decay Scheme

Intensities: Relative I_γ

%IT=100.0



$^{112}_{43}Tc_{69}$