Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 154, 1 (2018)	20-Nov-2018

Q(β^-)=12640 *SY*; S(n)=4440 *60*; S(p)=14080 *SY*; Q(α)=−3100 *SY* 2017Wa10
Uncertainties based on syst are: ΔQ(β^-)=600, ΔS(p)=410, ΔQ(α)=310.
Q(β^-n)=3820 *60* (2017Wa10).
Produced by Pb(^{238}U,F), E=750 AMeV (1994Be24, 1998Do08), production cross section σ=78 μb (1994Be24). Identification by time-of-flight.
2006KeZZ: ^{238}U beam of 750 MeV/u on Pb target, fragments following projectile fission separated, identified, and implanted into four double-sided silicon strip detectors; measured $T_{1/2}$.
2004Sh46 calculated B(E2)↑ for g.s., and energy and g factor for 2^+_1 state (no numerical values given).
2017Mo12: most extensive data and study of ^{140}Te from ^{140}Sb β^- decay (see dataset).
Proposed level scheme is from 2017Mo12.

^{140}Te Levels

Cross Reference (XREF) Flags

A ^{140}Sb β^- decay

E(level)	J^π	$T_{1/2}$	XREF	Comments
0.0	0^+	348 ms *5*	A	%β^-=100; %β^-n=? $T_{1/2}$: weighted average of 335 *14* ms from 2006KeZZ (β(t), quoted as preliminary) and 350 *5* ms from 2017Mo19 (from analysis of γ(t) decay curve of summed 342, 740, and 875 γ transitions in ^{140}I, and using maximum likelihood method for fitting a function of a single-component exponential decay and a constant background). Branching ratios were not measured for this nucleus.
422.9 *3*	$(2^+)^\dagger$		A	
848.2 *3*	$(4^+)^\dagger$		A	

† Assigned by 2017Mo12 as most likely populated by the β^- decay.

$\gamma(^{140}Te)$

E_i(level)	J^π_i	E_γ†	I_γ	E_f	J^π_f	Mult.	α‡	Comments
422.9	(2^+)	422.9 *3*	100	0.0	0^+	[E2]	0.01325	α(K)=0.01122 *16*; α(L)=0.001634 *24*; α(M)=0.000329 *5* α(N)=6.41×10^{-5} *9*; α(O)=6.55×10^{-6} *10*
848.2	(4^+)	425.3 *3*	100	422.9	(2^+)	[E2]	0.01303	α(K)=0.01103 *16*; α(L)=0.001605 *23*; α(M)=0.000323 *5* α(N)=6.30×10^{-5} *9*; α(O)=6.44×10^{-6} *10*

† From 2017Mo12 (β^- decay).
‡ Additional information 1.

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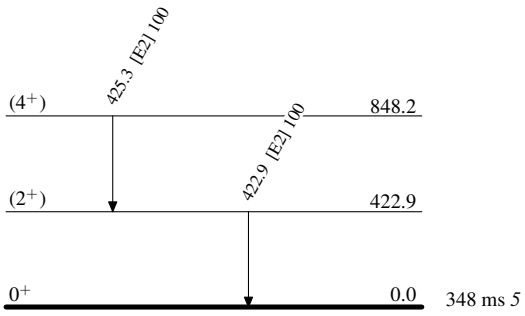
Level Scheme

Intensities: Relative photon branching from each level



$^{140}_{52}Te_{88}$