

$^{92}\text{Mo}(\text{p},\text{n}\gamma)$ 1976De07

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 2187 (2012)	15-Sep-2012

Additional information 1.

Others: 1969De22, 1971Ho27, 1972Mo36.

1976De07: E(p)=9-9.8, 15 MeV, Ge(Li) at 90°, NE213 scin at 270°; measured n γ coin, γ (t), excit.

1972Mo36: E(p)=11 MeV; measured E(ce).

1971Ho27: E(p)=12 MeV; measured E γ , γ (t).1969De22: E(p)=8.69-10.35, 14 MeV; measured E γ , excit. ^{92}Tc Levels

The level scheme is from 1976De07 and differs fundamentally from earlier schemes (1969De22,1971Ho27). The latter were incorrect due to nonobservation of the 47- and 56-keV transitions and failure to determine that 119 γ and 259 γ have different thresholds.

E(level) [†]	J π [#]	T _{1/2} [‡]
0.0	(8) ⁺ &	
213.70 10	6	<1 ns
270.04 11	4	1.03 [@] μs 7
389.4		
529.14 15	1,2 ⁻ ,3 ⁺	$\leq 0.1 \mu\text{s}$
576.60 15	1,2	<2 ns
711.10 18	1,2	$\leq 0.1 \mu\text{s}$

[†] From least-squares fit to E γ .[‡] From γ (t) measured between beam bursts or, for 529 and 711 levels, from $\gamma\gamma$ coin intensities (1976De07), except as noted.[#] From comparison of measured γ excitation functions with Hauser-Feshbach calculations (1976De07).[@] From 214 γ (t) of 1971Ho27; erroneously attributed by authors to 214 level. 1976De07 report T_{1/2}>0.5 s for 56 γ ; evaluator assumes this is a misprint and that units should be μs , consistent with experimental capability and with datum from 1971Ho27.

& From Adopted Levels.

 $\gamma(^{92}\text{Tc})$

E γ [†]	E _i (level)	J π _i	E _f	J π _f
47.46 3	576.60	1,2	529.14	1,2 ⁻ ,3 ⁺
56.34 2	270.04	4	213.70	6
119.4 [‡]	389.4		270.04	4
134.5 1	711.10	1,2	576.60	1,2
213.7 1	213.70	6	0.0	(8) ⁺
259.1 1	529.14	1,2 ⁻ ,3 ⁺	270.04	4

[†] For (p,n γ), 1976De07 show only a labeled spectrum. The evaluator, therefore, quotes E γ from authors' ^{92}Ru ε decay study, except for the 119 γ which is seen only in (p,n γ) (ΔE not stated).[‡] Evaluator presumes that unplaced 116.0 transition from ce data of 1972Mo36 corresponds to the 119.4 γ of 1976De07.

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Level Scheme

