^{140}Pr IT decay (3.05 μs) 1975Sc17,1973GuZD

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

Parent: ^{140}Pr: E=763.7 *5*; $J^\pi=(7)^-$; $T_{1/2}$=3.05 μs *20*; %IT decay=100.0
^{140}Pr-Adopted values.
Others: 1964Kr02, 1969Iv02.
Measured: γ, γ(t), γγ.
Decay scheme from 1973GuZD, 1975Sc17.

^{140}Pr Levels

E(level)	J^π†	$T_{1/2}$	Comments
0.0	1^+	3.39 min *1*	$T_{1/2}$: From Adopted Levels.
27.3	2^+		
29.51 *18*	3^+		E(level): from Adopted Levels. Additional information 1.
128.0 *3*	$(5)^+$	0.35 μs *2*	$T_{1/2}$: from 1975Sc17. Others: 0.54 μs *20* (1964Kr02), 0.5 μs (1973GuZD).
763.7 *5*	$(7)^-$	3.05 μs *20*	E(level): Adopted value; 763.9 *5* from 1973GuZD. $T_{1/2}$: from 1964Kr02. Others: 3.0 μs *6* (1969Iv02, 1973GuZD), 2.5 μs *4* (1975Sc17).

† Adopted values.

γ(^{140}Pr)

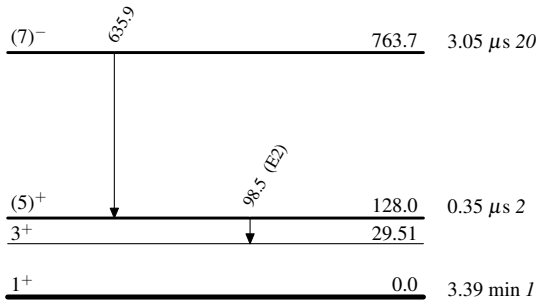
E_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α†	Comments
98.5 *3*	128.0	$(5)^+$	29.51	3^+	(E2)	2.24	α(K)=1.266 *21*; α(L)=0.758 *15*; α(M)=0.171 *4* α(N)=0.0369 *8*; α(O)=0.00515 *10*; α(P)=6.59×10^{-5} *11* Mult.: E2 agrees with $T_{1/2}$; from data on Iγ and K x ray 98γ must be E2 or E2(+M1) (1964Kr02).
635.9 *3*	763.7	$(7)^-$	128.0	$(5)^+$			

† Additional information 2.

^{140}Pr IT decay (3.05 μs) 1975Sc17,1973GuZD

Decay Scheme

%IT=100.0



$^{140}_{59}Pr_{81}$