

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. K. Basu, A. A. Sonzogni		NDS 114, 435 (2013)	1-Apr-2013

$Q(\beta^-)=5379$ 9; $S(n)=5332$ 13; $S(p)=8920$ 14; $Q(\alpha)=-1.68\times 10^3$ 3 [2017Wa10](#)

$S(2n)=11908$ 13; $S(2p)=20170$ 14 [2017Wa10](#)

[Additional information 1.](#)

 ^{150}Pr LevelsCross Reference (XREF) Flags

[A](#) ^{150}Ce β^- decay

[B](#) ^{252}Cf SF decay

E(level)	J^π	$T_{1/2}$	XREF	Comments
0	(1 ⁻)	6.19 s 16	AB	$\% \beta^- = 100$ $T_{1/2}$: from 1970Wa37 , other: 6 s 1 (1978Ya08), 9.1 s 4 (1974Ar17). J^π : from β^- decay to 0 ⁺ and 2 ⁺ states in ^{150}Nd (1986Fo05). Parity is fixed from allowed β^- decay of ^{150}Ce ($\log ft < 4.9$) to 110 keV level in ^{150}Pr which decays by an E1 transition.
109.9	(1 ⁺)		AB	
209.7			A	
488.1			A	
717.3			A	
897.0			A	

 $\gamma(^{150}\text{Pr})$

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	$\alpha^\dagger$	Comments
109.9	(1 ⁺)	109.9	100	0	(1 ⁻)	(E1)	0.990	$\alpha(K)\text{exp}=0.8$ 5 $\alpha(K)=0.843$ 12; $\alpha(L)=0.1161$ 17; $\alpha(M)=0.0245$ 4; $\alpha(N)=0.00547$ 8; $\alpha(O)=0.000881$ 13 $\alpha(P)=6.47\times 10^{-5}$ 9; $\alpha(N+..)=0.00642$ 9
209.7		100.3	100	109.9	(1 ⁺)			
488.1		278.8	100	209.7				
		378.4	18.9	109.9	(1 ⁺)			
717.3		230.0	100	488.1				
897.0		180.4	100	717.3				
		786.4		109.9	(1 ⁺)			

[†] Total theoretical internal conversion coefficients, calculated using the BrIcc code ([2008Ki07](#)) with Frozen orbital approximation based on γ -ray energies, assigned multiplicities, and mixing ratios, unless otherwise specified.

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

Legend

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$

