^{126}Pr ε decay 1995Os03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	H. Iimura, J. Katakura, S. Ohya	NDS 180, 1 (2022)	1-Oct-2021

Parent: ^{126}Pr: E=0.0; $J^{\pi}\geq 4$; $T_{1/2}$=3.14 s *22*; Q(ε)=10500 *SY*; %ε+%$β^+$ decay=100.0
1995Os03: ^{94}Mo(^{36}Ar,x), Eγ, Iγ, βγ, γγ, γ(t).
Other: 1988Ba42: $^{92-96}$Mo+^{40}Ca, Eγ, Xγ coin, γγ(t).

^{126}Ce Levels

E(level)†	J^{π}‡	$T_{1/2}$‡
0.0	0^+	51.0 s *4*
169.59 *3*	2^+	
519.13 *6*	4^+	
954.4 *4*	(2^+)	
1015.13 *12*	6^+	
1154.7 *4*	(3^+)	
1337.23 *21*	(4^+)	

† From a least-squares fit to E(γ's).
‡ From Adopted Levels.

γ(^{126}Ce)

Iγ normalization: from sum(I(γ+*ce*))(γ's to g.s.)=100.

E_γ†	I_γ†#	E_i(level)	J_i^{π}	E_f	J_f^{π}	Mult.‡	α@
169.59 *3*	100 *6*	169.59	2^+	0.0	0^+	E2	0.322
349.54 *5*	72 *4*	519.13	4^+	169.59	2^+	E2	0.0304
496.0 *1*	27.7 *19*	1015.13	6^+	519.13	4^+	E2	0.0110
785.1 *5*	6.8 *14*	954.4	(2^+)	169.59	2^+		
818.1 *2*	6.1 *9*	1337.23	(4^+)	519.13	4^+		
954.2 *4*	4.1 *7*	954.4	(2^+)	0.0	0^+		
985.1 *4*	8.3 *12*	1154.7	(3^+)	169.59	2^+		

† From 1995Os03.
‡ From adopted gammas.
# For absolute intensity per 100 decays, multiply by 0.74 *4*.
@ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays