^{96}Pd ε decay 1985Ry02

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. Abriola(a), A. A. Sonzogni	NDS 109, 2501 (2008)	1-Apr-2008

Parent: ^{96}Pd: E=0.0; $J^\pi=0^+$; $T_{1/2}$=122 s *2*; Q(ε)=3.45×10^3 *15*; %ε+%β^+ decay=100.0
Measured: γ, γγ, γ$^\pm$ (1985Ry02,1982Ku15,1980Ar11).
α: Additional information 1.

^{96}Rh Levels

E(level)	J^π†	$T_{1/2}$	Comments
0.0	6^+	9.90 min *10*	%ε+%β^+=100
52.00 *10*	3^+	1.51 min *2*	
176.7 *3*	(2^+)		
775.50 *25*	(2^+)		
939.1 *3*	1^+		
1185.5? *10*			
1275.3 *3*	1^+		
1564.6 *4*	1^+		
1802.1 *4*	1^+		

† Adopted values.

ε,β^+ radiations

E(decay)	E(level)	Iβ$^+$ †	Iε†	Log *ft*	I(ε+β$^+$)†	Comments
(1.65×10^3 *15*)	1802.1	0.20 *21*	4.6 *5*	4.11 *11*	4.8 *5*	av Eβ=281 *66*; εK=0.83 *4*; εL=0.104 *5*; εM+=0.0247 *12*
(1.89×10^3 *15*)	1564.6	0.6 *4*	4.8 *5*	4.21 *11*	5.4 *4*	av Eβ=384 *66*; εK=0.76 *6*; εL=0.095 *8*; εM+=0.0227 *19*
1149 *50*	1275.3	10 *3*	29 *4*	3.55 *12*	39.6 *13*	av Eβ=511 *67*; εK=0.64 *8*; εL=0.079 *10*; εM+=0.0189 *22* E(decay): from β$^+$/ε+β$^+$=0.257 *28* (from Iγ and Iγ±) (1985Ry02).
(2.26×10^3 *15*)	1185.5?	0.09 *10*	0.2 *2*	5.7 *5*	0.3 *3*	av Eβ=551 *67*; εK=0.59 *8*; εL=0.074 *10*; εM+=0.0176 *22*
(2.51×10^3 *15*)	939.1	23 *4*	28 *5*	3.70 *12*	50.9 *24*	av Eβ=661 *68*; εK=0.47 *8*; εL=0.059 *9*; εM+=0.0140 *22*

† Absolute intensity per 100 decays.

γ(^{96}Rh)

Iγ normalization: ΣIγ(to 3^+ isomer)=100%.

E_γ†	I_γ†‡	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α	Comments
(52.0 *1*)		52.00	3^+	0.0	6^+	M3	640 *11*	α(K)=374 *6*; α(L)=214 *4*; α(M)=44.4 *8*; α(N)=7.00 *13*; α(O)=0.182 *4*; α(N+..)=7.18 *13* Mult.: from α(K)exp in it Decay.
124.9 *4*	100 *5*	176.7	(2^+)	52.00	3^+	[M1]	0.185	α(K)=0.161 *3*; α(L)=0.0195 *4*; α(M)=0.00364 *6*; α(N)=0.000602 *10*; α(O)=3.01×10^{-5} *5* α(N+..)=0.000633 *11*
163.8 *6*	0.35 *10*	939.1	1^+	775.50	(2^+)			
289 *1*	<0.3	1564.6	1^+	1275.3	1^+			
336.1 *5*	1.5 *3*	1275.3	1^+	939.1	1^+			
499.7 *3*	27.5 *10*	1275.3	1^+	775.50	(2^+)			

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^{96}Pd ε decay 1985Ry02 (continued)

γ(^{96}Rh) (continued)

E_γ[†]	I_γ[†‡]	E_i(level)	J_i^π	E_f	J_f^π	E_γ[†]	I_γ[†‡]	E_i(level)	J_i^π	E_f	J_f^π
598.8 *3*	8.0 *4*	775.50	(2^+)	176.7	(2^+)	1008.8[#] *10*	<0.9	1185.5?		176.7	(2^+)
625.3 *4*	1.6 *3*	1564.6	1^+	939.1	1^+	1026.7 *5*	1.0 *3*	1802.1	1^+	775.50	(2^+)
723.4 *3*	25.1 *10*	775.50	(2^+)	52.00	3^+	1098.7 *6*	26.6 *15*	1275.3	1^+	176.7	(2^+)
762.3 *2*	76.9 *35*	939.1	1^+	176.7	(2^+)	1223.4 *7*	4.8 *5*	1275.3	1^+	52.00	3^+
788.9 *5*	3.4 *4*	1564.6	1^+	775.50	(2^+)	1388.5 *6*	3.0 *4*	1564.6	1^+	176.7	(2^+)
862.3 *7*	0.6 *2*	1802.1	1^+	939.1	1^+	1625.6 *6*	5.7 *6*	1802.1	1^+	176.7	(2^+)
887.1 *5*	3.9 *4*	939.1	1^+	52.00	3^+						

[†] From 1985Ry02.
[‡] For absolute intensity per 100 decays, multiply by 0.657 *7*.
[#] Placement of transition in the level scheme is uncertain.

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Decay Scheme

Intensities: I_γ per 100 parent decays