^{102}Nb β^- decay (1.3 s) 1976Ah06,1977SeZK,1985Me13

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	D. De Frenne	NDS 110, 1745 (2009)	31-Dec-2008

Parent: ^{102}Nb: E=0.0+x; $J^\pi=1^+$; $T_{1/2}$=1.3 s *2*; Q(β^-)=7210 *40*; %β^- decay=100.0

1976Ah06: assignment by chemical separation of niobium from ^{235}U,^{239}Pu,^{249}Cf(n,F); measured Eγ, $\gamma\gamma$-coin, $T_{1/2}$.

1977SeZK: mass separation of fission fragments; measured $\gamma\gamma$ angular correlation.

1985Me13: source is a mixture of both 1.3-s and 4.3-s mass-separated ^{102}Nb fission isomers produced in ^{235}U(n,F). Measured: PAC for (296γ-401γ) cascade. Deduced: g-factor for 296-keV level.

^{102}Mo Levels

E(level)†	J^π‡	$T_{1/2}$	Comments
0	0^+		
296.0 *4*	2^+	125 ps *4*	g=0.42 *7* (1985Me13) $T_{1/2}$: from 1991Li39. g: From PAC for (296γ-400γ) cascade.
696.6 *7*	0^+		
847.4 *4*	2^+		
1245.0 *5*	(3^+)		

† From a least-squares fit to measured gammas.

‡ From Adopted Levels. The $\gamma\gamma(\theta)$ results of 1977SeZK are consistent with these values.

γ(^{102}Mo)

All γ rays show both 1.3-s and 4.3-s components, unless noted otherwise.

ΔE: Uncertainties estimated by the evaluator.

E$_\gamma$†	E$_i$(level)	J_i^π	E$_f$	J_f^π	Comments
296.0 *5*	296.0	2^+	0	0^+	
397.6 *5*	1245.0	(3^+)	847.4	2^+	No half-life could be determined for this γ-ray. The mass assignment is based on $\gamma\gamma$-coin measurements.
400.6 *5*	696.6	0^+	296.0	2^+	
551.4 *5*	847.4	2^+	296.0	2^+	
847.4 *5*	847.4	2^+	0	0^+	
949.0 *5*	1245.0	(3^+)	296.0	2^+	

† From 1975Ah06.

‡ Uncertainties estimated by the evaluator.

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Decay Scheme