^{241}Pu(n,F) E=thermal 2004Sc42

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Zoltan Elekes and Janos Timar	NDS 129, 191 (2015)	28-Feb-2015

2004Sc42: ^{128}In isomer produced in thermal neutron induced fission of ^{241}Pu followed by separation of fission fragments by LOHENGRIN mass separator. Measured Eγ, Iγ, γγ with two Ge detectors: one clover detector and one triple cryostat on the Miniball array. The fission fragments were detected in a ΔE-E gas detector to achieve very good mass resolution.

^{128}In Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	$(3)^+$		Configuration=$\pi g_{9/2}^{-1}\nu d_{3/2}^{-1}$.
247.90 *10*	(1^-)	23 μs *2*	Configuration=$\pi g_{9/2}^{-1}\nu h_{11/2}^{-1}$. $T_{1/2}$: from time distribution of 248 keV G.
1172.4 *3*	1^+		Configuration=$\pi g_{9/2}^{-1}\nu g_{7/2}^{-1}$.

γ(^{128}In)

E_γ	E_i(level)	J_i^π	E_f	J_f^π	Comments
247.9 *1*	247.90	(1^-)	0.0	$(3)^+$	
1172.4 *3*	1172.4	1^+	0.0	$(3)^+$	E_γ: from Adopted Gammas.

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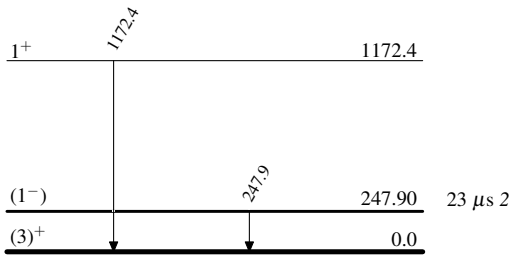
Level Scheme



$^{128}_{49}In_{79}$