^{239}Pu(n,Fγ) E=th 2005Zl01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 111, 525 (2010)	19-Nov-2009

Also ^{241}Pu(n,Fγ), E=th (1999Ge01).

2005ZL01: fission fragments separated using LOHENGRIN fission-fragment separator. The time of flight from the source to separator was about 1.8 μs. Measured isomeric γ rays using two Ge detectors in close geometry. Measured half-life of 830-keV isomer.

^{97}Sr Levels

E(level)	J$^\pi$[†]	$T_{1/2}$	Comments
0.0	$1/2^+$		
167.1	$(3/2^+)$		
308.1	$(7/2^+)$	170 ns *10*	$T_{1/2}$: from Adopted Levels.
830.2[‡]	$(9/2^+)$	526 ns *13*	$T_{1/2}$: from 2005Zl01. 1999Ge01 report $T_{1/2}(140\gamma)$=0.43 μs *3* presumably associated with this level, or this and 308 level (see table 1 and fig. 9).
1035.8[‡]	$(11/2^+)$		
1275.5[‡]	$(13/2^+)$		
1547.9[‡]	$(15/2^+)$		
1851.3[‡]	$(17/2^+)$		

[†] From 2005Zl01 (No arguments or source).
[‡] Band(A): ν9/2[404] isomer band.

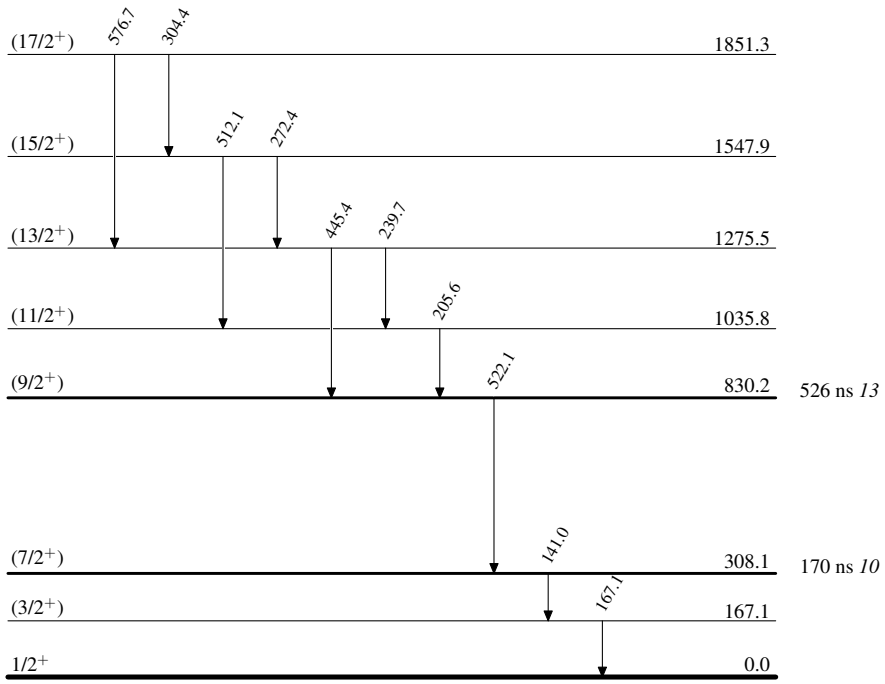
γ(^{97}Sr)

E_γ	E_i(level)	J_i^π	E_f	J_f^π
141.0	308.1	$(7/2^+)$	167.1	$(3/2^+)$
167.1	167.1	$(3/2^+)$	0.0	$1/2^+$
205.6[†]	1035.8	$(11/2^+)$	830.2	$(9/2^+)$
239.7[†]	1275.5	$(13/2^+)$	1035.8	$(11/2^+)$
272.4[†]	1547.9	$(15/2^+)$	1275.5	$(13/2^+)$
304.4[†]	1851.3	$(17/2^+)$	1547.9	$(15/2^+)$
445.4[†]	1275.5	$(13/2^+)$	830.2	$(9/2^+)$
512.1[†]	1547.9	$(15/2^+)$	1035.8	$(11/2^+)$
522.1	830.2	$(9/2^+)$	308.1	$(7/2^+)$
576.7[†]	1851.3	$(17/2^+)$	1275.5	$(13/2^+)$

[†] Given by 2005Zl01 from 2004Ur06 (^{248}Cf SF).

^{239}Pu(n,Fγ) E=th 2005Zl01

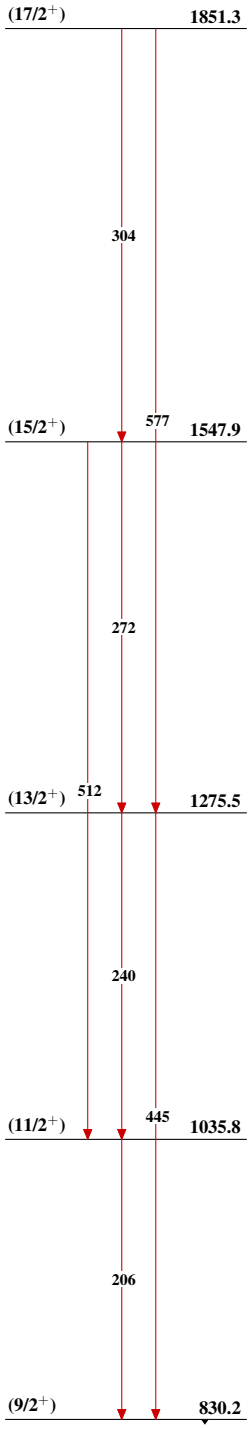
Level Scheme



$^{97}_{38}Sr_{59}$

^{239}Pu(n,Fγ) E=th 2005Zl01

Band(A): ν9/2[404] isomer band



$^{97}_{38}Sr_{59}$