

$^{119}\text{Sn}(\text{d},2\text{n}\gamma)$ 1991Io02

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	D. M. Symochko, E. Browne, J. K. Tuli		NDS 110,2945 (2009)	1-Dec-2008

1991Io02: $^{119}\text{Sn}(\text{d},2\text{n}\gamma)$, E=13.5 MeV; semi, NaI γ , $\gamma(\text{t})$, $\gamma(\theta,\text{t})$, TDPAD; enriched target (92.5%).
The level scheme is that proposed in 1979Sh03 from (HI,xn γ).

 ^{119}Sb Levels

E(level)	J^π [†]	$T_{1/2}$ [†]	Comments
0	$5/2^+$		
270.53 17	$7/2^+$		
970.90 19	$9/2^+$		
1212.67 16	$9/2^+$		
1340.81 25	$11/2^+$		
1366.27 23	$11/2^-$		
1675.8 3	$13/2^+$		
2037.6 3	$15/2^+$		
2314.0 3	$(15/2)^-$		
2419.4 3	$17/2^+$		
2553.8 3	$(19/2^-)$	130 ns 3	$T_{1/2}$: 128 ns 4 from (134.4 γ)(t) (1991Io02).

[†] From Adopted Levels.

 $\gamma(^{119}\text{Sb})$

E_γ	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π
134.4 2	124 [‡] 4	2553.8	$(19/2^-)$	2419.4	$17/2^+$
153.6 2	16 5	1366.27	$11/2^-$	1212.67	$9/2^+$
239.8 2	35 [‡] 4	2553.8	$(19/2^-)$	2314.0	$(15/2)^-$
270.5 2	100	270.53	$7/2^+$	0	$5/2^+$
335.0 2	7.6 8	1675.8	$13/2^+$	1340.81	$11/2^+$
361.9 2	4.7 6	2037.6	$15/2^+$	1675.8	$13/2^+$
369.9 2	17.4 9	1340.81	$11/2^+$	970.90	$9/2^+$
381.8 2	1.3 3	2419.4	$17/2^+$	2037.6	$15/2^+$
743.5 2	0.4 2	2419.4	$17/2^+$	1675.8	$13/2^+$
942.1 2	2.1 8	1212.67	$9/2^+$	270.53	$7/2^+$
947.7 2	2.4 8	2314.0	$(15/2)^-$	1366.27	$11/2^-$
970.9 2	12.6 10	970.90	$9/2^+$	0	$5/2^+$
1212.7 2	25.8 12	1212.67	$9/2^+$	0	$5/2^+$

[†] Relative to I(270.5 γ)=100 for prompt lines.

[‡] Not observed in prompt spectra. Relative to I(270.5 γ)=100 for delayed γ rays.

$^{119}\text{Sn}(\text{d},2\text{n}\gamma)$ 1991Io02

Level Scheme

Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

