

$^{94}\text{Mo}(^{16}\text{O},\text{p}2\text{n}\gamma)$ 1987An09

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 109, 1383 (2008)	1-Mar-2008

$E(^{16}\text{O})=56$ and 60 MeV.

Also use $^{93}\text{Nb}(^{16}\text{O},2\text{n}\gamma)$, $E=56$ MeV.

Measured: γ , ce, $T_{1/2}$, Ge(Li), mini-orange ce spectrometer.

 ^{107}In Levels

E(level)	J^π	$T_{1/2}$	Comments
0	$9/2^+$		
1001.5	$11/2^+$		
1414.9	$13/2^+$		
1853.4	$17/2^+$	1.7 ns 3	$T_{1/2}$: centroid-shift method.
2003.6	$19/2^+$	0.6 ns 2	$T_{1/2}$: centroid-shift method.
2794.5	$(21/2^+)$		
3282.4	$19/2^-$	<0.2 ns	
3441.7	$(21/2)$	<0.2 ns	

 $\gamma(^{107}\text{In})$

$E_\gamma^\ddagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]	Comments
150.3	2003.6	$19/2^+$	1853.4	$17/2^+$	M1(+E2)	$\delta: -0.32 \leq \delta \leq +0.32$.
159.1	3441.7	$(21/2)$	3282.4	$19/2^-$		
413.4	1414.9	$13/2^+$	1001.5	$11/2^+$		
438.4	1853.4	$17/2^+$	1414.9	$13/2^+$		
790.9	2794.5	$(21/2^+)$	2003.6	$19/2^+$		
1001.5	1001.5	$11/2^+$	0	$9/2^+$		
1414.9	1414.9	$13/2^+$	0	$9/2^+$		
1429.0	3282.4	$19/2^-$	1853.4	$17/2^+$		
1438.1	3441.7	$(21/2)$	2003.6	$19/2^+$		

[†] The authors were not able to separate the Ce(K) line for 150.3γ in ^{107}In from that for 151.4γ in ^{107}Sn . They determined an intensity ratio in γ lines to be 0.228. They ruled out pure E2 or pure M1 for 151.4γ in ^{107}Sn and deduced a mixture of $M1 + \leq 9.28\%$ E2 for the 150.3γ of ^{107}In .

[‡] Round-off values from 1986Ki11.

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