

$^{97}\text{Mo}(^{16}\text{O},3\text{np}\gamma)$ 1988Vi07,1987KuZV

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. Kumar(a), J. Chen(b) and F. G. Kondev		NDS 137, 1 (2016)	31-May-2016

1988Vi07,1987KuZV: E=69.5 MeV ^{16}O beam. Measured E_γ with a HPGe detector and $T_{1/2}$ using the Doppler-shift attenuation method (DSAM).

^{109}In Levels

E(level) [†]	J^π [‡]	$T_{1/2}$ [@]	Comments
0.0	9/2 ⁺ #		
1026.38 6	11/2 ⁺ #		
1099.31 20	5/2 ⁺ #		
1428.30 10	13/2 ⁺ #		
1463.48 21	9/2 ⁺ #		
1900.33 12	13/2 ⁺ #		
2101.82 13	19/2 ⁺ #	210.0 ms 9	$T_{1/2}$: From Adopted Levels.
2195.20 23	15/2 ⁺ #		
2272.5 3	13/2 ⁻ #		
2532.31 14	15/2 ⁻		
2868.7 4	17/2 ⁻	0.42 ps 17	
2957.9 6	19/2 ⁻		
3067.2 6	(17/2 ⁻)	0.31 ps 17	
3092.07 18	19/2 ⁻	0.42 ps 14	
3122.5 6	21/2 ⁻		
3202.4 5	21/2 ⁻		
3285.7 8	(19/2 ⁻)	>1.4 ps	
3374.6 6	19/2 ⁻		
3410.3 6		0.69 ps 21	
3462.0 8	23/2 ⁻	0.8 ps 3	
3517.0 9	(21/2 ⁻)	0.42 ps 14	
3800.1 8	25/2 ⁻	2.7 ps 14	
4037.3 9	(25/2 ⁻)		

[†] From a least-squares fit to E_γ .

[‡] From 1987KuZV and 1988Vi07, unless otherwise stated.

From Adopted Levels.

@ From 1987KuZV (also 1988Vi07) by DSAM.

$\gamma(^{109}\text{In})$

E_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π
89.2 5	2957.9	19/2 ⁻	2868.7	17/2 ⁻	339.5 5	3462.0	23/2 ⁻	3122.5	21/2 ⁻
110.4 5	3202.4	21/2 ⁻	3092.07	19/2 ⁻	389.8 5	3800.1	25/2 ⁻	3410.3	
164.5 5	3122.5	21/2 ⁻	2957.9	19/2 ⁻	416.7 [‡] 2	3374.6	19/2 ⁻	2957.9	19/2 ⁻
207.9 5	3410.3		3202.4	21/2 ⁻	437.1 [‡] 2	1463.48	9/2 ⁺	1026.38	11/2 ⁺
218.5 5	3285.7	(19/2 ⁻)	3067.2	(17/2 ⁻)	534.9 5	3067.2	(17/2 ⁻)	2532.31	15/2 ⁻
223.4 5	3092.07	19/2 ⁻	2868.7	17/2 ⁻	575.3 5	4037.3	(25/2 ⁻)	3462.0	23/2 ⁻
231.3 5	3517.0	(21/2 ⁻)	3285.7	(19/2 ⁻)	673.52 [‡] 8	2101.82	19/2 ⁺	1428.30	13/2 ⁺
259.0 5	2532.31	15/2 ⁻	2272.5	13/2 ⁻	766.9 [‡] 2	2195.20	15/2 ⁺	1428.30	13/2 ⁺
287.79 [‡] 12	3410.3		3122.5	21/2 ⁻	873.95 [‡] 10	1900.33	13/2 ⁺	1026.38	11/2 ⁺
336.3 5	2868.7	17/2 ⁻	2532.31	15/2 ⁻	990.25 [‡] 12	3092.07	19/2 ⁻	2101.82	19/2 ⁺

Continued on next page (footnotes at end of table)

$^{97}\text{Mo}(^{16}\text{O},3\text{np}\gamma)$ 1988Vi07,1987KuZV (continued) $\gamma(^{109}\text{In})$ (continued)

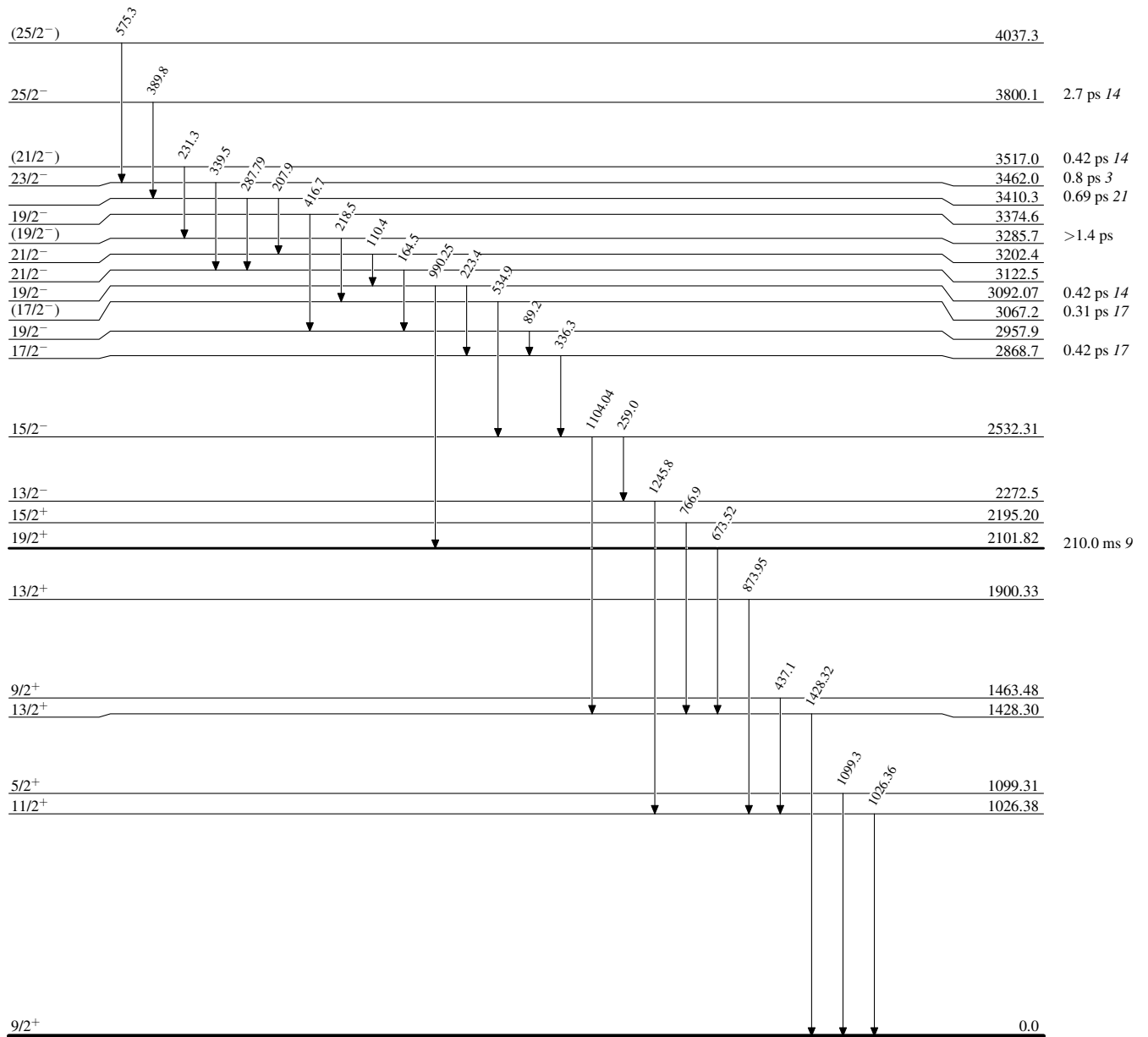
E_γ^\dagger	$E_i(\text{level})$	J_i^π	E_f	J_f^π
1026.36 ‡ 6	1026.38	11/2 ⁺	0.0	9/2 ⁺
1099.3 ‡ 2	1099.31	5/2 ⁺	0.0	9/2 ⁺
1104.04 ‡ 10	2532.31	15/2 ⁻	1428.30	13/2 ⁺
1245.8 ‡ 3	2272.5	13/2 ⁻	1026.38	11/2 ⁺
1428.32 ‡ 10	1428.30	13/2 ⁺	0.0	9/2 ⁺

† From 1987KuZV and 1988Vi07, by assuming $\Delta E=0.5$ keV, unless otherwise stated.

‡ From adopted gammas.

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Level Scheme

 $^{109}_{49}\text{In}_{60}$