^{100}Mo(n,γ) E=th: primary 1990Se17

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2006

E=thermal, enriched target 95.9%.
Measured γ singles, $\gamma\gamma$ coin (semi).
Additional information 1.

^{101}Mo Levels

E(level)	J^π	Comments
0.0	$1/2^+$	
294.6 *2*		
568.9 *2*		
854.5 *3*		
903.0 *3*		
1011.0 *2*		
1099.5 *4*		
1291.6 *2*		
1349.8 *2*		
1447.4 *2*		
1459.7 *4*		
1560.9 *4*		
1619.7 *3*		
1636.2 *3*		
1686.6 *4*		
1699.6 *2*		
1825.7 *3*		
1846.3 *6*		
1860.5 *2*		
1977.7 *10*		
2109.2 *8*		
(5398.27 *8*)		E(level): to be compared with 5398.24 *7* (2003Au03).

γ(^{101}Mo)

E_γ	I_γ †‡	E_i(level)	E_f	E_γ	I_γ †‡	E_i(level)	E_f	J_f^π
3289.1 *8*	7.8 *13*	(5398.27)	2109.2	3950.9 *2*	16.8 *13*	(5398.27)	1447.4	
3420.6 *10*	3.5 *9*	(5398.27)	1977.7	4048.5 *2*	14.7 *8*	(5398.27)	1349.8	
3537.8 *2*	15.8 *11*	(5398.27)	1860.5	4106.7 *2*	41.7 *15*	(5398.27)	1291.6	
3552.0 *6*	3.7 *5*	(5398.27)	1846.3	4298.8 *4*	3.7 *4*	(5398.27)	1099.5	
3572.6 *3*	12.8 *9*	(5398.27)	1825.7	4387.3 *2*	26.5 *13*	(5398.27)	1011.0	
3698.7 *2*	19.1 *13*	(5398.27)	1699.6	4495.3 *3*	3.5 *7*	(5398.27)	903.0	
3711.7 *4*	11.7 *8*	(5398.27)	1686.6	4543.8 *3*	4.6 *3*	(5398.27)	854.5	
3762.1 *3*	12.3 *6*	(5398.27)	1636.2	4829.4 *2*	6.2 *4*	(5398.27)	568.9	
3778.6 *3*	9.1 *7*	(5398.27)	1619.7	5103.7 *2*	68 *3*	(5398.27)	294.6	
3837.4 *4*	7.7 *6*	(5398.27)	1560.9	5398.1 *3*	5.0 *4*	(5398.27)	0.0	$1/2^+$
3938.5 *4*	6.9 *13*	(5398.27)	1459.7					

† Absolute photons/1000 n captures are listed; normalized via the 191 keV in ^{101}Tc decay. Uncertainties do not contain the 2% error of the 191 keV (^{101}Tc decay).
‡ For intensity per 100 neutron captures, multiply by 0.1.

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Level Scheme

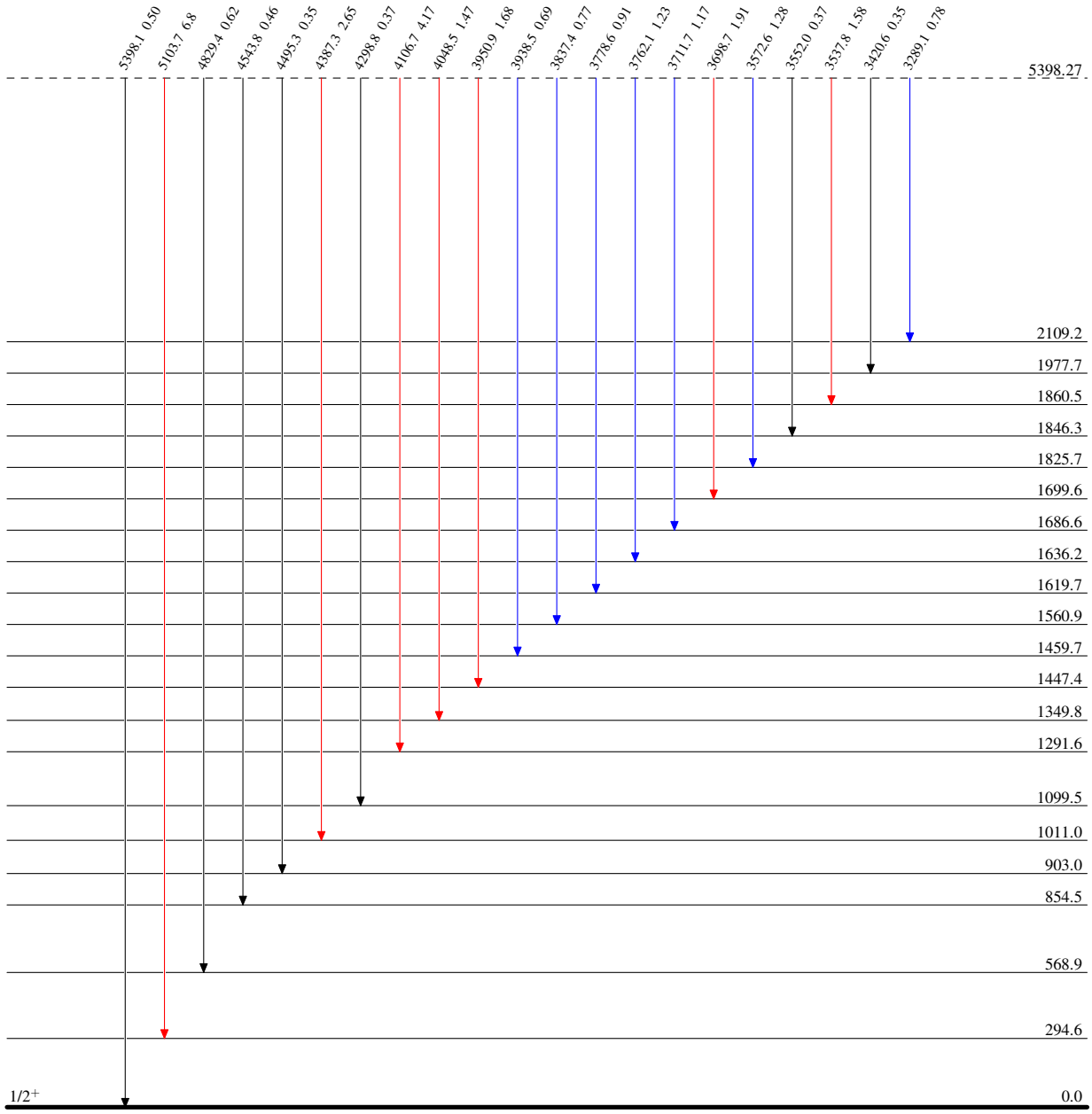
Intensities: I_γ per 100 neutron captures

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



$^{101}_{42}Mo_{59}$