^{98}Mo(n,γ) E=resonance 1976Ch02

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 145, 25 (2017)	1-Jul-2017

Several resonances between 12.1 eV and 5268 eV have been studied. Only combined results on Eγ are quoted here. See 1976Ch02 for Iγ from each resonance.
Neutron capture at E=24 keV studied by 1977Ri04.

^{99}Mo Levels

E(level)	Jπ†	Comments
0	1/2+	
97.4 *14*	5/2+	
351.3 *10*	3/2+	
524.6 *12*	1/2+	
548.6 *10*	3/2+	
613.8 *14*	5/2+	
631.3 *14*	3/2+	
791.8 *10*	3/2+	
887.5 *12*	3/2+	
905.1 *10*	1/2+	
945.1 *14*	5/2+	
1024.9 *10*	(3/2+,5/2+)	
1166.3 *10*	5/2+	
1253.8 *12*	5/2+	
1381.9 *14*	3/2+,5/2+	
1455.3 *21*	1/2+,3/2+,5/2+	
1533.1 *21*	3/2+,5/2+	
1559.1 *14*	1/2,3/2,5/2+	
1571.0 *14*	1/2,3/2,5/2+	
1634.8 *21*		Jπ: 9/2−,11/2−,3/2+,5/2+.
1661.1 *25*		
1710.2 *19*	3/2+,5/2+	
1741.5 *21*		
1887.5 *25*	(1/2−,3/2−)	
1928.5 *21*	1/2+	
1949.5 *21*	1/2+	
2055.5 *21*	3/2−,5/2−,7/2−	
2132.5 *21*	1/2−,3/2−	
2179.5 *25*		
2218.5 *25*	5/2−	
2299.5 *25*		
2318.5 *21*		
2340.5 *21*	1/2,3/2	
(5924.6 *6*)		

† Adopted values.

γ(^{99}Mo)

Eγ	Ei(level)	Ef	Jπf
3584.0 *20*	(5924.6)	2340.5	1/2,3/2
3606.0 *20*	(5924.6)	2318.5	
3625.0 *24*	(5924.6)	2299.5	
3706.0 *24*	(5924.6)	2218.5	5/2−

Continued on next page (footnotes at end of table)

^{98}Mo(n,γ) E=resonance 1976Ch02 (continued)

$\gamma(^{99}Mo)$ (continued)

E_γ	E_i(level)	E_f	J_f^π	E_γ	E_i(level)	E_f	J_f^π
3745.0 *24*	(5924.6)	2179.5		4670.7 *10*	(5924.6)	1253.8	$5/2^+$
3792.0 *20*	(5924.6)	2132.5	$1/2^-,3/2^-$	4758.2 *8*	(5924.6)	1166.3	$5/2^+$
3869.0 *20*	(5924.6)	2055.5	$3/2^-,5/2^-,7/2^-$	4899.6 *8*	(5924.6)	1024.9	$(3/2^+,5/2^+)$
3975.0 *20*	(5924.6)	1949.5	$1/2^+$	4979.4 *12*	(5924.6)	945.1	$5/2^+$
3996.0 *20*	(5924.6)	1928.5	$1/2^+$	5019.4 *8*	(5924.6)	905.1	$1/2^+$
4037.0 *24*	(5924.6)	1887.5	$(1/2^-,3/2^-)$	5037.0 *10*	(5924.6)	887.5	$3/2^+$
4183.0 *20*	(5924.6)	1741.5		5132.6 *8*	(5924.6)	791.8	$3/2^+$
4214.3 *18*	(5924.6)	1710.2	$3/2^+,5/2^+$	5293.1 *12*	(5924.6)	631.3	$3/2^+$
4263.4 *24*	(5924.6)	1661.1		5310.6 *12*	(5924.6)	613.8	$5/2^+$
4289.7 *20*	(5924.6)	1634.8		5375.8 *8*	(5924.6)	548.6	$3/2^+$
4353.5 *12*	(5924.6)	1571.0	$1/2,3/2,5/2^+$	5399.8 *10*	(5924.6)	524.6	$1/2^+$
4365.4 *12*	(5924.6)	1559.1	$1/2,3/2,5/2^+$	5573.1 *8*	(5924.6)	351.3	$3/2^+$
4391.4 *20*	(5924.6)	1533.1	$3/2^+,5/2^+$	5827.0 *12*	(5924.6)	97.4	$5/2^+$
4469.2 *20*	(5924.6)	1455.3	$1/2^+,3/2^+,5/2^+$	5924.4 *6*	(5924.6)	0	$1/2^+$
4542.6 *12*	(5924.6)	1381.9	$3/2^+,5/2^+$				

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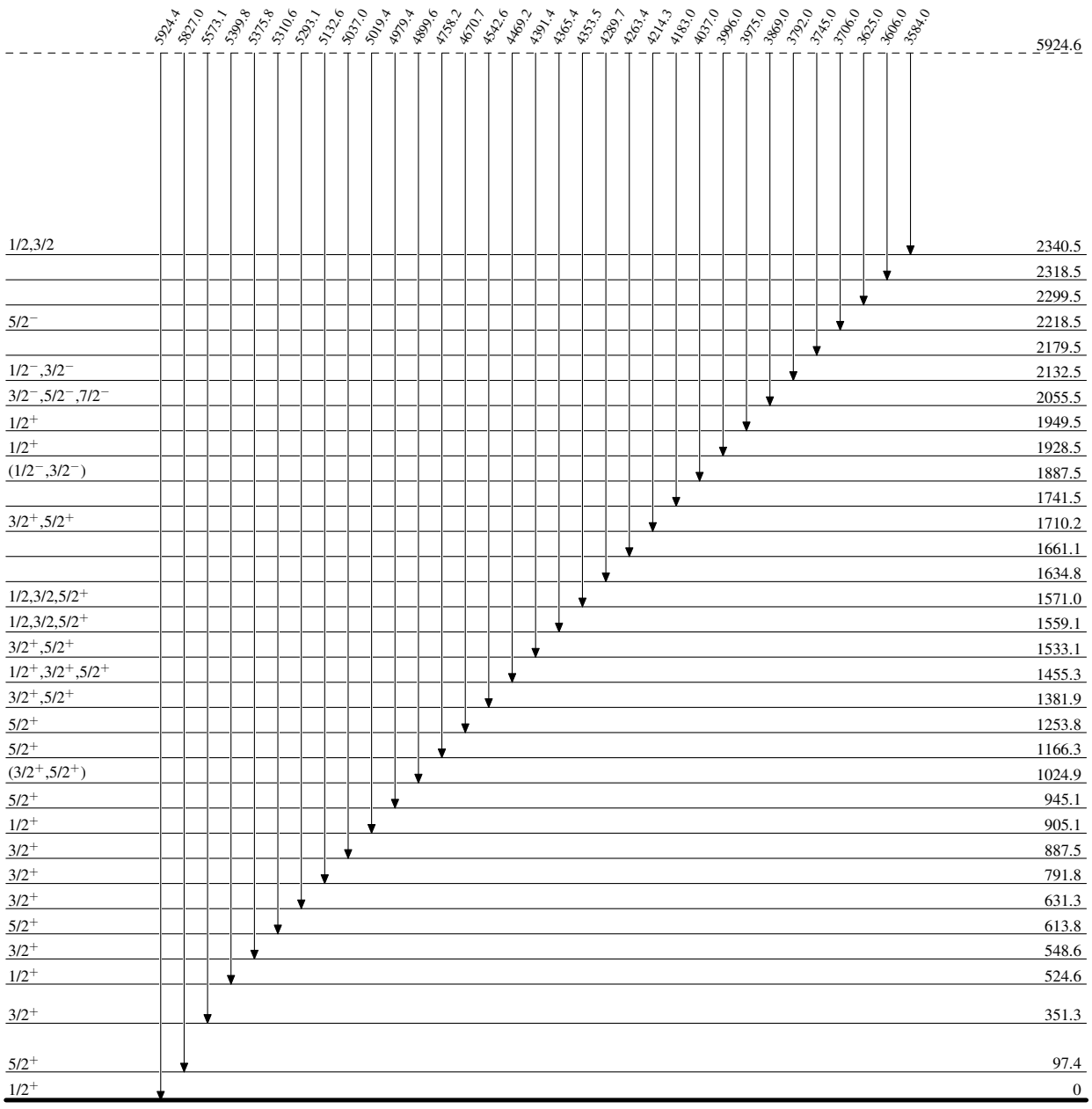
Level Scheme



$^{99}_{42}Mo_{57}$