^{96}Mo(p,d),(d,t) 1977Bi02,1970Di06

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. K. Basu, G. Mukherjee, A. A. Sonzogni	NDS 111, 2555 (2010)	30-Jun-2009

1970Di06: E(d)=12 MeV. Measured $\sigma(\theta=5^\circ$ to $45^\circ)$; mag spect, emulsions. FWHM=7-9 keV. DWBA.
1977Bi02: E(p)=38.6 and E(d)=40.6 MeV. See ^{96}Mo(p,d),(d,t),(^{3}He,α) IAR for experimental details.
All data are from 1977Bi02 and agreement between 1970Di06 and 1977Bi02 is good, except as noted. Others: 1969Oh05 for (d,t), 1982HaZD for (pol d,t), and 1983MaZM for (pol p,d).

^{95}Mo Levels

E(level)	J$^\pi$[†]	L[‡]	C^{2}S[#]	Comments
0.0	$5/2^+$	2	1.98,2.54	
201 *6*	$3/2^+$	2	0.05,0.04	
769 *6*	$7/2^+$	4	(0.88),0.89	
787[@]	$1/2^+$[@]	0[@]	0.165[@]	
816 *7*	$3/2^+$	2	0.16,0.16	
945 *7*	$9/2^+$	4	0.26,0.18	
1041[@]	$1/2^+$[@]	0[@]	0.208[@]	
1044 *10*	$5/2^+$	2	0.18,0.18	
1092[&] *12*	$7/2^+$&$5/2^+$	4+2		
1367[&] *15*	$1/2^-$	(1)[a]	0.02,0.02	
1428 *12*	$3/2^+$	2[a]	0.014,0.014	J$^\pi$: discrepant with adopted $J^\pi=(5/2)^+$.
1542[&] *10*	$9/2^+$	4	0.034,0.018	
1618 *10*	$3/2^+$	2	0.079,0.084	
1674 *10*	$9/2^+$	4	0.35,0.31	
1879[&] *12*	$9/2^+$	4	0.11,0.084	
1942 *12*	$11/2^-$&$5/2^+$	5+2		
1984 *15*	$5/2^+$	2		
2050 *15*	$3/2^+$	2	0.03,0.04	
2067[@]	$(5/2^-)$[@]	(3)[@]	0.20[@]	
2130[&b] *15*	$9/2^+$	4	0.06[b]	
2179 *15*	$3/2^+$	2	0.02,0.047	
2221[c]	$1/2^-$[c]	1[c]	0.026[c]	
2260[c]	$3/2^+$[c]	2[c]	0.044[c]	
2319 *12*	$1/2^-$	1	0.33,0.18	
2375[&b] *15*	$1/2^+$&$5/2^+$	0+2	(0.13+0.05)[b]	
2441 *12*	$9/2^+$	4	1.81,1.37	
2501[&b] *15*	$9/2^+$	(4)	(0.18)[b]	
2531 *12*	$9/2^+$	4	1.18,0.88	
2610[@]				
2680[@]				
2718[&] *15*	$1/2^-$	1	0.22,0.15	
2769[&] *15*	$1/2^-$	1	0.13,0.11	
2890[&] *15*	$1/2^-$	1	0.18,0.12	
2986[&] *17*	$1/2^-$	1	0.17,0.13	
3063[&] *17*	$1/2^-$	1	0.35,0.29	
3170[&] *20*	$3/2^+$	2	0.06,0.07	
3200[&] *20*	$3/2^+$	(2)		Not observed in (p,d) by 1977Bi02. C^{2}S(d,t)=(0.04) (1977Bi02).
3260[&] *20*	$3/2^+$	2	0.07,0.07	
3310[&b] *20*	$3/2^+$	2	0.04[b]	

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^{96}Mo(p,d),(d,t) 1977Bi02,1970Di06 (continued)

^{95}Mo Levels (continued)

E(level)	J^{π}†	L‡	C^2S#	E(level)	J^{π}†	L‡	C^2S#
3380&b *17*	$9/2^+$	4	0.59[b]	4310 *20*	$3/2^-$	1	0.12,0.11
3443 *17*	$1/2^-$	1	0.20,0.21	4350 *20*	$3/2^-$	1	0.14,0.06
3494 *17*	$9/2^+$	4	1.00,0.99	4400 *25*	$3/2^-$	1	0.09,0.08
3551 *17*	$9/2^+$	4	0.65,0.63	4450 *25*	$3/2^-$	1	0.14,0.08
3625 *17*	$9/2^+$	4	0.31,0.33	4500 *25*	$3/2^-$	1	0.13,0.09
3960 *20*	$3/2^-$	1	0.084,0.065	4560 *30*	$3/2^+$	2	0.03,0.04
4010 *20*	$3/2^-$	1	0.14,0.12	4630 *30*	$3/2^+$	(2)	(0.02,0.03)
4070 *20*	$3/2^-$	1	0.15,0.10	4740 *30*	$3/2^-$	1	0.08,0.05
4170 *20*	$3/2^-$	1	0.13,0.11	4810 *30*	$3/2^-$	1	0.04,0.03
4240 *20*	$3/2^-$	1	0.12,0.12				

† From 1977Bi02, except as noted. Proposed on the basis of the shell model; no assignments were made.
‡ From DWBA analysis of $\sigma(\theta)$.
# First value is from (p,d) and second, from (d,t).
@ From 1970Di06; not observed by 1977Bi02. Spin and parity assumed for the extraction of C^2S.
& Not observed by 1970Di06.
[a] The L(1367)=1 $\sigma(\theta)$ is very similar to the L(1428)=2 $\sigma(\theta)$ for (d,t) shown in 1977Bi02.
[b] Not observed in (d,t) by 1977Bi02.
[c] From (d,t) data of 1970Di06. Unresolved doublet with E_x=2240 *15*, L=1+2 $C^2S(1/2^-$ and $5/2^+)$=0.03+0.04,0.03+0.03 in 1977Bi02.