

$^{96}\text{Mo}(\text{pol p,d})$ 2004Su22

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

E=50 MeV, 96% enriched ^{96}Mo target. Measured $\sigma(\theta)$ and analyzing powers from 8° to 48° ; the deuterons were analyzed in momentum with RAIDEN spectrometer viewed with the focal plane detector system KYUSHU. FWHM=40 keV. DWBA analysis.

 ^{95}Mo Levels

E(level)	J^π	L	C^2S^\dagger	E(level)	J^π	L	C^2S^\dagger	E(level)	J^π	L	C^2S^\dagger
0	$5/2^+ \ddagger$	2	1.663	2301 2	$1/2^- \#$	1	0.315	3601 4	$9/2^+ \ddagger$	4	0.213
214 3	$3/2^+ \#$	2	0.044	2417 2	$9/2^+ \ddagger$	4	1.359	3698 13			
775 3	$7/2^+ \#$	4	0.813	2518 2	$9/2^+ \ddagger$	4	0.978	3741 16			
826 2	$3/2^+ \#$	2	0.115	2711 3	$1/2^- \#$	1	0.174	3985 8	$3/2^- \ddagger$	1	0.152
948 2	$9/2^+ \ddagger$	4	0.152	2744 4	$3/2^- \ddagger$	1	0.109	4032 6	$(3/2)^- \ddagger @$	1	(0.174)
1049 4	$(5/2^+) \ddagger @$	(2)	(0.150)	2861 3	$1/2^- \#$	1	0.207	4154 6	$3/2^- \ddagger$	1	0.180
1356 9	$(3/2^+) \# @$	2	(0.005)	2952 3	$3/2^- \ddagger$	1	0.174	4229 6	$5/2^+ \ddagger$	2	0.117
1412 7	$3/2^+ \#$	2	0.010	3027 3	$3/2^- \ddagger$	1	0.370	4299 6	$(3/2)^- \ddagger @$	1	(0.184)
1603 3	$3/2^+ \#$	2	0.078	3122 5	$9/2^+ \ddagger$	4	0.087	4394 17	$(3/2)^- \ddagger @$	1	(0.091)
1656 2	$9/2^+ \ddagger$	4	0.217	3162 4	$(3/2)^- \ddagger @$	1	(0.076)	4441 17	$3/2^- \ddagger$	1	0.098
1859 3	$9/2^+ \ddagger$	4	0.098	3226 3	$9/2^+ \ddagger$	4	0.136	4486 17	$(3/2)^- \ddagger @$	1	(0.113)
1916 5	$(9/2^+) \ddagger @$	4	(0.315)	3264 4	$(3/2)^+ \# @$	2	(0.057)	4533 19	$(3/2)^- \ddagger @$	1	(0.087)
2024 4	$3/2^+ \#$	2	0.037	3296 6	$3/2^- \ddagger$	1	0.065	4738 12	$1/2^- \#$	1	0.105
2096 7	$9/2^+ \ddagger$	4	0.054	3354 3	$9/2^+ \ddagger$	4	0.511	4792 13	$(3/2)^- \ddagger @$	1	(0.061)
2152 9	$(5/2^+) \ddagger @$	(2)	(0.130)	3403 5	$3/2^- \ddagger$	1	0.196	4860 12	$(3/2)^- \ddagger @$	1	(0.065)
2188 5	$5/2^+ \ddagger$	2	0.013	3464 2	$9/2^+ \ddagger$	4	0.870	4908 16	$(9/2^+) \ddagger @$	4	(0.136)
2223 6	$(1/2)^- \# @$	1	(0.041)	3521 3	$9/2^+ \ddagger$	4	0.544	4954 24	$9/2^+ \ddagger$	4	0.136

\dagger $C^2S = [d\sigma/d\Omega(2J+1)]/[N(d\sigma/d\Omega(\text{DWBA}))]$, $N=2.30$; J =spin of transferred particle.

\ddagger L+1 transfer from $Ay(\theta)$; $2p_{3/2}$ for L=1, $2d_{5/2}$ for L=2, $1g_{7/2}$ for L=4.

$\#$ L-1 transfer from $Ay(\theta)$; $2p_{1/2}$ for L=1, $2d_{3/2}$ for L=2, $1g_{7/2}$ for L=4.

@ Uncertain assignments, either the $\sigma(\theta)$ or the $Ay(\theta)$ distributions do not agree well with the DWBA calculations.