

<sup>94</sup>Mo(p,p') 1992Pi08,1987Fr07

Type	Author	History	Citation	Literature Cutoff Date
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1992Pi08: E=30.7 MeV, FWHM<12 keV; measured  $\sigma(\theta)$ , coupled-channels ( $\alpha$ ) analysis.

1987Fr07: E=25.6 MeV. Enriched target. Measured  $\sigma(\theta)$ ,  $\theta=7.5^\circ$  to  $168^\circ$  in  $2.5^\circ$  to  $5^\circ$  steps. FWHM=20 keV, semi.

Coupled-channels analysis using macroscopic and semi-microscopic models.

1971Lu07: E=15 MeV. Enriched target. Semi, FWHM=50 keV.

1975Bu04: E=12.5 MeV. Enriched target. Semi, FWHM=40 to 60 keV.

1981PI07: polarized p, E=18.6-20 MeV. Measured analyzing power for 871 level.

Other: 1982Ce04, 1992Ke07.

Analysis of hexadecapole strength distribution fitted with a Breit- Wigner shape by 1992Pi08 for their data on <sup>94</sup>Mo gives the following parameters: E0=2.90 MeV,  $\Gamma=0.90$  MeV, energy weighted sum rule (EWSR) exhausted=1.53%, and  $E0 A^{1/3}=13.18$  MeV.

<sup>94</sup>Mo Levels

E(level) <sup>†</sup>	J $\pi$ #	S@	Comments
0	0 <sup>+</sup>		
871 2	2 <sup>+</sup>		J $\pi$ : from vector-analyzing power in (pol p,p') (1981PI07).
1573 2	4 <sup>+</sup>	+0.0650	
1738 2	0 <sup>+</sup>		
1864 2	2 <sup>+</sup>		
2068 2	2 <sup>+</sup>		
2121 $\frac{3}{2}^-$ 5	$\frac{3}{2}^-$		
2295 2	4 <sup>+</sup>	-0.0207	
2322 2	6 <sup>+</sup>		
2393 2	2 <sup>+</sup>		J $\pi$ : (2 <sup>+</sup> ,1 <sup>-</sup> ) for a level at 2390 5 (1987Fr07).
2424 2	(5 <sup>-</sup> ,6 <sup>+</sup> )		J $\pi$ : 4 <sup>+</sup> for a level at 2421 5 (1987Fr07).
2534 5	3 <sup>-</sup>		
2565 5	4 <sup>+</sup>	-0.0180	
2580 5	(3 <sup>-</sup> )		
2611 5	5 <sup>-</sup>		J $\pi$ : (4 <sup>+</sup> ,5 <sup>-</sup> ) for a level at 2610 5 (1987Fr07).
2703 5	(3 <sup>-</sup> )		
2738 5	2 <sup>+</sup>		
2770 5	4 <sup>+</sup>	-0.0508	J $\pi$ : 4 <sup>+</sup> ,5 <sup>-</sup> for a level at 2768 5 (1987Fr07).
2837 5	(3 <sup>-</sup> )		
2853 5	(4 <sup>+</sup> )	-0.0161	
2868 $\frac{3}{2}^-$ 5	2 <sup>+</sup> $\frac{3}{2}^-$		
2960 5	(4 <sup>+</sup> )	-0.0160	J $\pi$ : (4 <sup>+</sup> ,4 <sup>-</sup> ) for a level at 2960 5 (1987Fr07).
2996 5	(3 <sup>-</sup> )	-0.0153	
3014 5	3 <sup>-</sup>		J $\pi$ : (2 <sup>+</sup> ) for a level at 3012 5 (1987Fr07).
3032 5	4 <sup>+</sup>	-0.0124	
3087 5	(2 <sup>+</sup> )		
3134 5	2 <sup>+</sup>		
3169 5	6 <sup>+</sup>		J $\pi$ : 4 <sup>+</sup> for a level at 3166 5 (1987Fr07).
3204 5	3 <sup>-</sup>		J $\pi$ : 1 <sup>-</sup> ,2 <sup>+</sup> for a level at 3202 5 (1987Fr07).
3266 5	1 <sup>-</sup>		J $\pi$ : 2 <sup>+</sup> ,2 <sup>-</sup> for a level at 3262 5 (1987Fr07).
3309 5	2 <sup>+</sup>		
3344 5	(5 <sup>-</sup> ,6 <sup>+</sup> )		
3376 5	4 <sup>+</sup>	-0.0328	
3396 5	5 <sup>-</sup>		
3435 5	2 <sup>+</sup>		
3456? 5	2 <sup>+</sup>		J $\pi$ : 3 <sup>-</sup> ,4 <sup>+</sup> for a level at 3456 5 (1987Fr07).
3465 5	(3 <sup>-</sup> ,5 <sup>-</sup> )		
3539 5	1 <sup>-</sup>		J $\pi$ : 4 <sup>-</sup> for a level at 3532 5 (1987Fr07).

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$^{94}\text{Mo}(\text{p},\text{p}') \quad \underline{1992\text{Pi08},1987\text{Fr07}} \text{ (continued)}$  $^{94}\text{Mo}$  Levels (continued)

E(level) <sup>†</sup>	J <sup>π</sup> #	S <sup>@</sup>	Comments
3588 5	(2 <sup>+</sup> )		
3604 5	3 <sup>-</sup>		
3627 5	(3 <sup>-</sup> )		
3647 5	2 <sup>+</sup>		
3694 5			
3707 5	4 <sup>+</sup>	-0.0240	J <sup>π</sup> : 2 <sup>+</sup> for a level at 3702 5 (1987Fr07).
3730 5	4 <sup>+</sup>	-0.0195	
3802 5	2 <sup>+</sup>		J <sup>π</sup> : 5 <sup>-</sup> for a level at 3796 5 (1987Fr07).
3848 5	4 <sup>+</sup>		J <sup>π</sup> : 4 <sup>+</sup> ,2 <sup>+</sup> for a level at 3852 5 (1987Fr07).
3869 5	5 <sup>-</sup>		
3901 5	2 <sup>+</sup>		
3917 5			
3928 5	2 <sup>+</sup>		
3995 5	2 <sup>+</sup>		J <sup>π</sup> : (2 <sup>+</sup> ) for a level at 3990 5 (1987Fr07).
4004 5	2 <sup>+</sup>		
4024 5	(5 <sup>-</sup> ,6 <sup>+</sup> )		
4062 5	(3 <sup>-</sup> )		
4093 5	(1 <sup>-</sup> ,4 <sup>+</sup> )		J <sup>π</sup> : 4 <sup>+</sup> for a level at 4095 5 (1987Fr07).
4113 5	(3 <sup>-</sup> )		
4128 5	3 <sup>-</sup>		E(level): observed in (p,p') only.
4139 5	2 <sup>+</sup>		
4191 5	2 <sup>+</sup>		
4317 5	2 <sup>+</sup>		J <sup>π</sup> : (3 <sup>-</sup> ,4 <sup>+</sup> ) for a level at 4320 5 (1987Fr07).
4602‡ 5	‡		

<sup>†</sup> From 1992Pi08, unless indicated otherwise and are combined data from (p,p') and (d,d') reactions. There is general agreement between these and the level energies observed by 1987Fr07 with comparable resolution.

<sup>‡</sup> From 1987Fr07.

# From 1992Pi08 based on angular distribution analysis, unless indicated otherwise. Differences in J<sup>π</sup> assignments by 1987Fr07 based also on angular distribution analysis are indicated in comments.

@ Deformation parameter.