

$^{97}\text{Mo}(\text{d,p})$  1968Ev01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen, Balraj Singh		NDS 164, 1 (2020)	15-Feb-2020

$J^\pi(^{97}\text{Mo g.s.})=5/2^+$ .

**1968Ev01:** E=10-12 MeV deuterons were produced from the University of Pennsylvania Tandem Van de Graaff. Target was 250  $\mu\text{g}/\text{cm}^2$   $\text{MoO}_3$  (92.8% enriched in  $^{97}\text{Mo}$ ) on a 25  $\mu\text{g}/\text{cm}^2$  carbon foil. Reaction products were momentum-analyzed with a Browne-Buechner 65-cm broad-range spectrograph and detected with nuclear emulsion plates. Measured  $\sigma(\theta)$  at 15°, 20°, 45°. Deduced levels.

Others:

**1964Hj02, 1964Co11, 1960Co10:** E=15 MeV. Data for g.s.

**1963Za04:** E=13.6 MeV, data for first 2<sup>+</sup> state.

**1954Wa33:** E=15 MeV, measured Q value.

 $^{98}\text{Mo}$  Levels

E(level)	L	Comments
0	2	L: from <b>1964Hj02</b> . $d\sigma/d\Omega$ (max)=0.71 mb/sr ( <b>1964Hj02</b> ), 0.55 mb/sr ( <b>1960Co10</b> ). $d\sigma/d\Omega$ (at 20°, 10.1 MeV)=0.47 12 mb/sr ( <b>1968Ev01</b> ). S: 2.5 ( <b>1964Hj02</b> ).
736 20		
787 15	2	L: from <b>1963Za04</b> .
1435 15		
1513? 15		
1761 15		
1830?		
2025? 15		
2110? 30		
2216 <sup>†</sup> 15		
2340 20		
2430 15		
2500?		
2530 25		
2585 15		
2630 15		$d\sigma/d\Omega$ (at 20°, 10.1 MeV)=0.82 21 ( <b>1968Ev01</b> ). Intensely populated state.
2829 20		
2880 20		
2925 20		
2980 30		E(level): possibly 2975+2997.
3066 15		
3124 20		
3168 20		
3270 30		E(level): possibly 3250+3290.
3340 <sup>†</sup> 20		
3430 <sup>†</sup> 20		
3512 <sup>†</sup> 20		
3570 15		
3636 20		
3695 20		
3740 30		
3790 30		
7434 15		

<sup>†</sup> Possibly unresolved multiplet.