^{200}Hg(d,p) 1972Mo12

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 187,355 (2023)	20-Sep-2022

Beam: E(d)=17 MeV; Target: ^{202}Hg, but isotopic purity is unknown; Detectors: photographic emulsions, split-pole spectrograph, FWHM=10-14 keV.

^{201}Hg Levels

E(level)[†]	Jπ[‡]	L[†]	S[#]	Comments
0[@]	(3/2⁻)	(1)	0.37	S: Probably includes strength to the 1.57 keV (J^π=1/2⁻) level, that is unresolved in 1972Mo12.
28[&]	5/2⁻	1+3	0.32	Jπ: From Adopted Levels. S for L=3.
32	3/2⁻	1+3	0.18	Jπ: From Adopted Levels. S for L=1.
169	(1/2⁻)	(1)	0.38	
417				
466	(5/2⁻)	(3)	0.10	
550				
735				
1280	(7/2⁻,3/2⁻)	(3,1)	0.11	S: Value quoted for L=3. S=0.06 for L=1 (1972Mo12).
1336				
1367				
1946	(9/2⁺,7/2⁻)	(4,3)	0.05	S: Value quoted for L=4. S=0.07 for L=3 (1972Mo12).
2081	(9/2⁺,7/2⁻)	(4,3)	0.08	S: Value quoted for L=4. S=0.11 for L=3 (1972Mo12).
2103	9/2⁺	4	0.25	
2628	9/2⁺	4	0.06	
2660?				
2795	(9/2⁺,5/2⁺)	(4,2)	0.10	S: Value quoted for L=4. S=0.05 for L=2 (1972Mo12).
2863				
2890				
2911				
2938				
2976	(9/2⁺,5/2⁺)	(4,2)	0.08	S: Value quoted for L=4. S=0.04 for L=2 (1972Mo12).
2995	(9/2⁺,5/2⁺)	(4,2)	0.06	S: Value quoted for L=4. S=0.03 for L=2 (1972Mo12).
3115	(9/2⁺,5/2⁺)	(2,4)	0.03	S: Value quoted for L=2. S=0.06 for L=4 (1972Mo12).
3172				
3196				
3233				
3252				
3270				
3294	(5/2⁺,9/2⁺)	(2,4)	0.07	S: Value quoted for L=2. S=0.14 for L=4 (1972Mo12).
3539	(5/2⁺,9/2⁺)	(2,4)	0.05	S: Value quoted for L=2. S=0.10 for L=4 (1972Mo12).
3579				
3712				
3768				
3814	(9/2⁺,5/2⁺)	(4,2)	0.05	S: Value quoted for L=4. S=0.03 for L=2 (1972Mo12).
3837	(5/2⁺,13/2⁺)	(2,6)	0.02	S: Value quoted for L=2. S=0.40 for L=6 (1972Mo12).
3870				
3884				
3900				
3921				
4007	(5/2⁺,13/2⁺)	(2,6)	0.02	E(level): Possibly a doublet. S: Value quoted for L=2. S=0.52 for L=6 (1972Mo12).
4070				
4095				
4123				
4233				
4284	(5/2⁺,9/2⁺)	(2,4)	0.13	S: Value quoted for L=2. S=0.23 for L=4 (1972Mo12).

Continued on next page (footnotes at end of table)

^{200}Hg(d,p) 1972Mo12 (continued)

^{201}Hg Levels (continued)

E(level)[†]	J^{π}[‡]	L[†]	S[#]	Comments
4313	$(5/2^+,9/2^+)$	(2,4)	0.21	S: Value quoted for L=2. S=0.37 for L=4 (1972Mo12).
4362	$(9/2^+,1/2^+)$	(4,0)	0.08	S: Value quoted for L=4. S=0.08 for L=0 (1972Mo12).
4381				
4405				
4418?				
4467?				
4484				
4579				
4591	$(9/2^+,5/2^+)$	(4,2)	0.03	S: Value quoted for L=4. S=0.02 for L=2 (1972Mo12).
4649	$(9/2^+,5/2^+)$	(4,2)	0.04	S: Value quoted for L=4. S=0.02 for L=2 (1972Mo12).

† From 1972Mo12. ΔE=0.4% for well-resolved peaks.

‡ From the deduced L values and spectroscopic factors (1972Mo12), unless otherwise stated.

$\Delta S \approx \pm 50\%$. $S=N*(d\sigma/d\Omega)_{expt}/(d\sigma/d\Omega)_{DWBA}$. $N=(1/1.5)/(2J+1)$.

@ Dominant configuration=$\nu\ p^{-1}_{3/2}$.

& Dominant configuration=$\nu\ f^{-1}_{5/2}$.