

$^{204}\text{Hg}(\text{d,t})$ 1972Mo12

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 177, 509, 2021	4-Jul-2021

1972Mo12: Beam: E(d)=17 MeV; Target: ^{204}Hg enriched to 95.8%; Detectors: photographic emulsions, split-pole spectrograph, FWHM=10-14 keV.
Others: 1970An14.

 ^{203}Hg Levels

E(level) [†]	J ^π [‡]	L [†]	S [#]	Comments
0 [@]	5/2 ⁻	(3)	0.80	Dominant configuration= $\nu(\text{f}_{5/2})^{-1}$. L,S: L=3, S=7.9 in 1970An14.
≈5 [@]	(1/2 ⁻)	(1)	3.2	Dominant configuration= $\nu(\text{p}_{1/2})^{-1}$. L,S: L=1, S=1.7 in 1970An14.
46	3/2 ⁻	1	1.8	
219	3/2 ⁻	1	2.1	L,S: L=1, S=1.4 in 1970An14.
364				
542	5/2 ⁻	3	2.1	
749	5/2 ⁻	3	0.42	
767	(3/2 ⁻)	1,(3)	0.17,0.74	
926 [@]	(13/2 ⁺)	(6)	12	Dominant configuration: $\nu(\text{i}_{13/2}^{-1})$.
1027				
1044	3/2 ⁻	1	1.0	
1112				
1332				
1375?				
1468	7/2 ⁻	3	0.44	
1643	7/2 ⁻	3	0.44	
1756 [@]	(7/2 ⁻)	3	3.3	L,S: L=3, S=2.9 in 1970An14.
1763 [@]	(7/2 ⁻)	3		
1825				
1836	(7/2 ⁻)	(3)	0.30	
1944				
1984				
2007				
2030				
2111	(7/2 ⁻)	3,(4)	1.3,1.8	
2206				
2226				
2367				
2451				
2612				

[†] From 1972Mo12. $\Delta E=0.4\%$ for well-resolved peaks.

[‡] From the deduced L values and spectroscopic factors (1972Mo12).

[#] $S=N^*(\text{d}\sigma/\text{d}\Omega)(\text{exp})/(\text{d}\sigma/\text{d}\Omega)(\text{DWBA})$ with $N=1/3.33$; $\Delta S \approx \pm 50\%$. Note, that $S= N^*(\text{d}\sigma/\text{d}\Omega)(\text{exp})/(\text{d}\sigma/\text{d}\Omega)(\text{DWBA})$ with $N=1/[(2j+1)*1.48]$ in 1970An14.

[@] Doublet.