

$^{202}\text{Hg}(\text{d},\text{p})$  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:  $^{204}\text{Hg}$  enriched to 95.8%; Detectors: photographic emulsions, split-pole spectrograph, FWHM=10-14 keV.

 $^{203}\text{Hg}$  Levels

E(level) <sup>†</sup>	J <sup>π</sup> <sup>‡</sup>	L <sup>†</sup>	S <sup>#</sup>	Comments
0	5/2 <sup>-</sup>	3	0.16	Dominant configuration= $\nu(\text{f}_{5/2})^{-1}$ .
≈5 <sup>@</sup>	1/2 <sup>-</sup>	1	0.34	Dominant configuration= $\nu(\text{p}_{1/2})^{-1}$ .
47	(3/2 <sup>-</sup> )	(1)	0.12	
222	(3/2 <sup>-</sup> )	(1)	0.16	
548	(5/2 <sup>-</sup> )	(3,1)	0.06,0.03	
755				
773	(3/2 <sup>-</sup> )	(1)	0.04	
1344	(3/2 <sup>-</sup> )	(1)		
1481				
1582				
1766?				
1841?				
2032	(9/2 <sup>+</sup> )	(4,2)	0.39,0.13	
2121	(9/2 <sup>+</sup> )	(4,2)	0.21,0.10	
2362?				
2639?				
2695	(5/2 <sup>+</sup> )	(2)		
2713	(5/2 <sup>+</sup> )	(2,4)	0.03,0.06	
2759	(9/2 <sup>+</sup> )	(4,2)	0.13,0.06	
2974 <sup>@</sup>	(5/2 <sup>+</sup> )	(2,4)	0.06,0.12	
3017				
3054	(5/2 <sup>+</sup> )	(2,4)	0.08,0.15	
3097				
3139				
3155				
3220				
3271	(9/2 <sup>+</sup> )	(4,2)	0.12,0.05	
3305	(9/2 <sup>+</sup> )	(4,2)	0.17,0.08	
3358				
3515				
3539				
3586				
3613				
3632 <sup>@</sup>	(1/2 <sup>+</sup> )	(0,2)		
3642 <sup>@</sup>	(1/2 <sup>+</sup> )	(0,2)		
3673				
3706				
3756				
3776				
3812	(5/2 <sup>+</sup> )	(2)	0.08,0.15	
3841	(5/2 <sup>+</sup> )	(2)	0.04,0.07	
3863				
3881				
3932				
3946	5/2 <sup>+</sup>	2	0.05	
3959				
3989	(5/2 <sup>+</sup> )	(2)	0.07	

Continued on next page (footnotes at end of table)

$^{202}\text{Hg}(\text{d},\text{p})$  **1972Mo12** (continued) $^{203}\text{Hg}$  Levels (continued)

<u>E(level)<sup>†</sup></u>	<u>J<sup>π</sup><sup>‡</sup></u>	<u>L<sup>†</sup></u>	<u>S<sup>#</sup></u>	<u>E(level)<sup>†</sup></u>	<u>J<sup>π</sup><sup>‡</sup></u>	<u>L<sup>†</sup></u>	<u>S<sup>#</sup></u>	<u>E(level)<sup>†</sup></u>
4006				4225				4453
4030				4284	(3/2 <sup>+</sup> )	2,4	0.14,0.23	4488?
4087	(1/2 <sup>+</sup> )	(0)	0.29	4317	(3/2 <sup>+</sup> )	2,4	0.33,0.56	
4192				4348?				

<sup>†</sup> From **1972Mo12**.  $\Delta E=0.4\%$  for well-resolved peaks.

<sup>‡</sup> From the deduced L values and spectroscopic factors (**1972Mo12**).

<sup>#</sup>  $\Delta S \approx \pm 50\%$ .  $S = N(d\sigma/d\Omega)(\text{exp}) / (d\sigma/d\Omega)(\text{DWBA})$ .  $N = 1 / [1.5(2j+1)]$ .

@ Doublet.