

$^{204}\text{Hg}(\text{pol t},\alpha)$  1981FI05

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

1981FI05: Beam: E(t)=17 MeV, polarized; Target: natural composition, evaporated onto a carbon foil; Detectors: magnetic spectrograph, FWHM=18 keV; Measured:  $\sigma(\theta,\text{pol})$ ; DWUCK analysis to deduce  $J^\pi$  and spectroscopic strengths.

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

<u>E(level)<sup>†</sup></u>	<u>J<sup>π</sup></u>	<u>C<sup>2</sup>S<sup>†</sup>#</u>	<u>S<sup>†</sup>‡</u>	<u>E(level)<sup>†</sup></u>	<u>J<sup>π</sup></u>	<u>C<sup>2</sup>S<sup>†</sup>#</u>	<u>S<sup>†</sup>‡</u>	<u>E(level)<sup>†</sup></u>	<u>J<sup>π</sup></u>	<u>C<sup>2</sup>S<sup>†</sup>#</u>	<u>S<sup>†</sup>‡</u>
0 <sup>&amp;</sup>	3/2 <sup>+</sup>	5.05	0.62	760 <sup>d</sup> 5	5/2 <sup>+</sup>	0.54	0.10	1278 5	1/2 <sup>+</sup>	0.20	0.06
39 <sup>a</sup> 5	1/2 <sup>+</sup>	1.52	0.44	851 <sup>@</sup> 5				1460 5	11/2 <sup>-</sup>	3.37	0.21
386 <sup>d</sup> 5	3/2 <sup>+</sup>	0.82	0.10	985?				1759 5	(5/2 <sup>+</sup> )	(0.65)	(0.12)
637 <sup>b</sup> 5	11/2 <sup>-</sup>	7.30	0.61	1087 <sup>c</sup> 5	5/2 <sup>+</sup>	3.61	0.65				

<sup>†</sup> From 1981FI05.

<sup>‡</sup> Values relative to  $^{208}\text{Pb}(\text{pol t},\alpha)^{207}\text{Tl}$  after correcting for the mass and Q value effects (1981FI05).

#  $C^2S = N^*(2J+1)(d\sigma/d\Omega)(\text{exp})/(d\sigma/d\Omega)(\text{DWBA})$ .  $N=1/23$ .

@ Possibly a doublet.

& Dominant configuration= $\pi(d_{3/2}^{-1})$ .

<sup>a</sup> Dominant configuration= $\pi(s_{1/2}^{-1})$ .

<sup>b</sup> Dominant configuration= $\pi(h_{11/2}^{-1})$ .

<sup>c</sup> Dominant configuration= $\pi(d_{5/2}^{-1})$ .

<sup>d</sup> configuration= $\pi(d_{3/2}^{-1})\otimes 2^+$  and/or  $\pi(s_{1/2}^{-1})\otimes 2^+$ .