

$^{202}\text{Hg}(t,\alpha)$  1981FI05

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

1981FI05: 17-MeV polarized triton beam; Detectors: magnetic spectrograph with FWHM=15-18 keV; Measured:  $\sigma(\theta, \text{pol})$ ; DWBA analysis relative to  $^{208}\text{Pb}(t,\alpha)$ .

 $^{201}\text{Au}$  Levels

| E(level) <sup>†</sup>  | J <sup>π</sup> <sup>‡</sup> | S <sup>#</sup> | E(level) <sup>†</sup> | J <sup>π</sup> <sup>‡</sup> | S <sup>#</sup> | E(level) <sup>†</sup> | J <sup>π</sup> <sup>‡</sup> | S <sup>#</sup> | E(level) <sup>†</sup> |
|------------------------|-----------------------------|----------------|-----------------------|-----------------------------|----------------|-----------------------|-----------------------------|----------------|-----------------------|
| 0 <sup>@</sup>         | 3/2 <sup>+</sup>            | 0.44           | 653 5                 | 5/2 <sup>+</sup>            | 0.27           | 1242 5                | (5/2 <sup>+</sup> )         | 0.07           | 1698 5                |
| 101 <sup>&amp;</sup> 5 | 1/2 <sup>+</sup>            | 0.23           | 810 5                 | 5/2 <sup>+</sup>            | 0.03           | 1465 5                | 5/2 <sup>+</sup>            | 0.20           | 1900 5                |
| 359 5                  | 3/2 <sup>+</sup>            | 0.05           | 897 5                 | 1/2 <sup>+</sup>            | 0.09           | 1506 5                | 11/2 <sup>-</sup>           | 0.29           | 1941 5                |
| 549? 5                 |                             |                | 1055 5                | 3/2 <sup>+</sup>            | 0.07           | 1548 5                |                             |                | 1981 5                |
| 594 <sup>a</sup> 5     | 11/2 <sup>-</sup>           | 0.44           | 1216 5                | 5/2 <sup>+</sup>            | 0.12           | 1664 5                |                             |                | 2055 5                |

<sup>†</sup> From 1981FI05.

<sup>‡</sup> Based on angular distributions and analyzing powers in 1981FI05.

<sup>#</sup> Spectroscopic factors relative to  $^{208}\text{Pb}(t,\alpha)^{207}\text{Tl}$ . Values indicate larger fragmentation of the proton-hole strength compared to  $^{203}\text{Au}$ , which is interpreted as a result of the larger collectivity (deformation) of the  $^{202}\text{Hg}$  core relative to  $^{204}\text{Hg}$  one (1981FI05).

<sup>@</sup> Main configuration= $\pi d_{3/2}^{-1}$ .

<sup>&</sup> Main configuration= $\pi s_{1/2}^{-1}$ .

<sup>a</sup> Main configuration= $\pi h_{11/2}^{-1}$ .