

²⁰⁵Tl(p,t) 1977Se15,1981We03

| Type | Author | History Citation | Literature Cutoff Date |
|-----------------|--------------|------------------|------------------------|
| Full Evaluation | F. G. Kondev | NDS 105,1 (2005) | 1-Mar-2005 |

1977Se15: E(p)=19 MeV; magnetic spectrograph; $\sigma(\theta)$; $\Delta E=5-7$ keV.

1981We03: E(p)=26.2 MeV; Target: 99.5% ²⁰⁵Tl, ≈ 0.25 mg/cm² thick; Detectors: position sensitive proportional chamber backed by a thin plastic scintillator; Measured: $\sigma(\theta)$, FWHM=20 keV; Deduced: E,L,J ^{π} ,s. DWBA analysis. $\Delta E=5$ keV below 2 MeV and $\Delta E=10$ keV above 2 MeV.

²⁰³Tl Levels

| E(level) [†] | J π [#] | L [†] | S [†] | Comments |
|-----------------------|---|----------------|----------------|-------------------|
| 0 | 1/2 ⁺ | 0 | 5.88 | |
| 279 5 | 3/2 ⁺ | 2 | 0.46 | |
| 681 5 | 5/2 ⁺ | 2 | 3.20 | |
| 1045 5 | 3/2 ⁺ | 2 | 0.83 | |
| 1068 5 | 3/2 ⁺ ,5/2 ⁺ | 2 | 0.47 | |
| 1075 [‡] 7 | | | | |
| 1113 5 | (1/2 ⁺ ,3/2 ⁺) | (0+2) | | |
| 1188 5 | 7/2 ⁺ ,9/2 ⁺ | 4 | 1.24 | |
| 1227 5 | 7/2 ⁺ ,9/2 ⁺ | 4 | 9.61 | |
| 1273 5 | 7/2 ⁺ ,9/2 ⁺ | 4 | 4.66 | |
| 1325 5 | (3/2 ⁺ ,5/2 ⁺) | (2) | 0.20 | |
| 1400 5 | 7/2 ⁺ ,9/2 ⁺ | 4 | 3.37 | |
| 1454 5 | 3/2 ⁺ ,5/2 ⁺ | 2 | 0.62 | |
| 1492 5 | 7/2 ⁺ ,9/2 ⁺ | 4 | 4.00 | |
| 1574 5 | 3/2 ⁺ ,5/2 ⁺ | 2 | 0.16 | |
| 1655 5 | (1/2 ⁺ ,3/2 ⁺) | (0+2) | | |
| 1688 [‡] 5 | 3/2 ⁺ ,5/2 ⁺ | 2 | | L: From 1977Se15. |
| 1698 5 | (7/2 ⁺ ,9/2 ⁺) | (4) | 1.63 | |
| 1755 5 | 3/2 ⁺ ,5/2 ⁺ | 2 | 0.34 | |
| 1820 5 | (3/2 ⁺ ,5/2 ⁺) | (2) | 0.34 | |
| 1856 5 | 3/2 ⁺ ,5/2 ⁺ | 2 | 0.18 | |
| 1924 5 | | | | |
| 1964 5 | 7/2 ⁺ ,9/2 ⁺ | 4 | 0.78 | |
| 1987 5 | | | | |
| 2040 10 | | | | |
| 2077 10 | | | | |
| 2149 10 | | | | |
| 2180 10 | 3/2 ⁺ ,5/2 ⁺ | 2 | | |
| 2232 10 | 3/2 ⁺ ,5/2 ⁺ | 2 | 0.20 | |
| 2270 10 | (9/2 ⁻ ,11/2 ⁻) | (5) | 0.72 | |
| 2310 10 | | (0+4) | | |
| 2345 10 | (7/2 ⁺ ,9/2 ⁺) | (4) | 1.45 | |
| 2367 10 | | | | |
| 2406 10 | (9/2 ⁻ ,11/2 ⁻) | (5) | 0.35 | |
| 2445 10 | (7/2 ⁺ ,9/2 ⁺) | (4) | 2.26 | |
| 2494 10 | (5/2 ⁻ ,7/2 ⁻) | (3) | 0.22 | |
| 2541 10 | (5/2 ⁻ ,7/2 ⁻) | (3) | 0.41 | |
| 2598 10 | (11/2 ⁺ ,13/2 ⁺) | (6) | 1.35 | |
| 2629 10 | | | | |

[†] From 1981We03, unless otherwise stated.

[‡] From 1977Se15.

[#] From L transfer values (by the evaluator).