

$^{105}\text{Pd}(\text{d,p})$ 1969Di14

| Type | Author | History | Citation | Literature Cutoff Date |
|-----------------|----------------------------|---------|---------------------|------------------------|
| Full Evaluation | D. De Frenne and A. Negret | | NDS 109, 943 (2008) | 1-May-2007 |

E(d)=17 MeV. Measured: proton spectra at $\theta=10^\circ-50^\circ$, magnetic spectrograph resolution (FWHM) is 10-12 keV. Deduced: ^{106}Pd levels, L, S'.
 Other: 1966So01.
 $^{105}\text{Pd}(J^\pi=5/2^+)$.

 ^{106}Pd Levels

ΔE : Uncertainty $\approx \pm 3$ keV (1969Di14).

| E(level) | J^π @ | L# | S& | Comments |
|-------------------|--------------------------------|-------|-----------|---|
| 0.0 | 0 ⁺ | 2 | 0.33 | |
| 511 | 2 ⁺ | 2(+0) | 0.12 | |
| 1130 [‡] | 2 ⁺ | 0+2 | 0.03+0.15 | |
| 1229 | 4 ⁺ | (2) | 0.03 | |
| 1561 [‡] | 2 ⁺ | 2 | 0.21 | |
| 1910 | 2 ⁺ | (0) | 0.01 | |
| 1936 [‡] | 4 ⁺ | 2 | 0.05 | |
| 2084 [‡] | 3 ⁻ | 2+5 | 0.03+0.03 | |
| 2242 | 2 ⁺ | 0 | 0.17 | |
| 2282? | 4 ⁺ | | | |
| 2310 | 2 ⁺ | 2(+0) | 0.10 | |
| 2353? | 4 ⁺ | | | |
| 2398 | (5) ⁻ | 5 | 0.05 | |
| 2441 | 2 ⁺ | 2(+4) | 0.04 | |
| 2471 | 1 ⁺ ,2 ⁺ | 2 | 0.20 | |
| 2502 | 2 ⁻ | 0+2 | 0.04+0.05 | J^π : not consistent with L=0+2, but level may be unresolved doublet in (d,p). |
| 2579 | (5) ⁻ | | | J^π : $J^\pi=(4^-)$, in contradiction with adopted value. L=2+0 and S=0.04+0.03 for the 2579-2592 doublet. |
| 2592 | (2,3) ⁺ | | | J^π : L=2+0 and S=0.04+0.03 for the 2579-2592 doublet. |
| 2627 | (2,3) ⁺ | 2 | 0.12 | |
| 2648 | 4 ⁺ | 2 | 0.05 | |
| 2699? | (6) ⁻ | | | |
| 2714 | (2,3) ⁺ | 2+0 | 0.33+0.12 | |
| 2736 [‡] | 4 ⁺ | 2 | 0.10 | |
| 2757 | 5 ⁺ | 2+4 | 0.09+0.05 | |
| 2776 | (4 ⁺) | 2+0 | 0.27+0.10 | |
| 2791? | (7) ⁻ | | | |
| 2815 | 2 ⁺ | 0(+2) | 0.09 | |
| 2828? | 0 ⁺ | | | |
| 2852 | 2 ⁺ ,3 ⁺ | 2+0 | 0.08+0.04 | |
| 2879 | 0 ⁺ | 2 | 0.11 | |
| 2903 | 2 ⁺ | 0(+2) | 0.15 | |
| 2918 | 2 ⁺ | 2+0 | 0.08+0.06 | |
| 2955 | 5 ⁺ | 4+2 | 0.04+0.04 | |
| 2975 [‡] | + | 4+2 | 0.04+0.05 | |
| 3002? | | | | |
| 3026 | + | 2 | 0.37 | |
| 3044 | 4 ⁺ | | | J^π : L=2(+0) and S=0.27 for the 3044-3055 doublet. |
| 3055 | 1 ⁺ | | | J^π : L=2(+0) and S=0.27 for the 3044-3055 doublet. |
| 3069? | 2 ⁺ | | | |

Continued on next page (footnotes at end of table)

 $^{105}\text{Pd(d,p)}$ **1969Di14** (continued) ^{106}Pd Levels (continued)

| <u>E(level)</u> | <u>Jπ@</u> | <u>L#</u> | <u>S&</u> |
|-------------------|-----------------------------------|-----------|---------------|
| 3085? | 0 | | |
| 3098 | (2 ⁺) | 2 | 0.17 |
| 3121 | 2 ⁺ ,3 ⁺ | 2+0 | 0.36+0.21 |
| 3144 | 2 ⁺ ,3 ⁺ | 0 | 0.24 |
| 3175 [‡] | (2 ⁺ ,3 ⁺) | 2+0 | 0.16+0.12 |

[†] Uncertainty $\approx \pm 3$ keV (**1969Di14**).

[‡] Unresolved doublet.

Deduced from angular distributions ($\theta=10^\circ-50^\circ$) compared with DWBA calc.

@ From Adopted Levels.

& S'=(2J+1)S is listed.