

$^{174}\text{Yb}(t,p)$ 1983Bu03

| Type | Author | History Citation | Literature Cutoff Date |
|-----------------|---------------|---------------------|------------------------|
| Full Evaluation | M. S. Basunia | NDS 107, 791 (2006) | 15-Sep-2005 |

Target: 95.8% enriched ^{174}Yb . Projectile: t, E=15 MeV. Detector: magnetic spectrograph, FWHM \approx 15 keV. Measured angular distributions of scattered protons at $\theta=7.5^\circ$ to 67.5° in steps of 7.5° .

 ^{176}Yb Levels

| E(level) ‡ | L † | S $^\#$ | Comments |
|----------------------|--------------|---------|--|
| 0.0 | 0 | 1.0 | $d\sigma/d\Omega$ ($\mu\text{b}/\text{sr}$)=219 at 30° . |
| 82 | | | $d\sigma/d\Omega$ ($\mu\text{b}/\text{sr}$)=27 at 30° . |
| 272 | | | $d\sigma/d\Omega$ ($\mu\text{b}/\text{sr}$)=19 at 30° . |
| 1141 | | | |
| 1261 | | | |
| 1338 | | | $d\sigma/d\Omega$ ($\mu\text{b}/\text{sr}$)=22 at 30° . |
| 1437 | | | $d\sigma/d\Omega$ ($\mu\text{b}/\text{sr}$)=20 at 30° . |
| \approx 1520 | | | $d\sigma/d\Omega$ ($\mu\text{b}/\text{sr}$)=11 at 30° . |
| 1738 | | | $d\sigma/d\Omega$ ($\mu\text{b}/\text{sr}$)=13 at 30° . |
| 1779 | 0 | 0.34 | $d\sigma/d\Omega$ ($\mu\text{b}/\text{sr}$)=65 at 30° . |
| \approx 2060 | | | $d\sigma/d\Omega$ ($\mu\text{b}/\text{sr}$) \leq 6 at 30° . |
| 2302 | | | $d\sigma/d\Omega$ ($\mu\text{b}/\text{sr}$)=27 at 30° . |

† From comparison of experimental angular distributions with theoretical DWBA calculations. L=0 transfers have a distinctive oscillatory pattern which gives a firm identification.

‡ $\Delta E \approx 3$ keV for strongly populated levels with $E \leq 1500$ keV, $\Delta E \approx 6$ keV for higher level energies.

$^\#$ L=0 strength relative to 1 for the ground state.