

¹⁶⁶Er(t,p) 1985Bu19

| Type | Author | History Citation | Literature Cutoff Date |
|-----------------|-----------------|----------------------|------------------------|
| Full Evaluation | Coral M. Baglin | NDS 111, 1807 (2010) | 15-Jun-2010 |

E(t)=17 MeV; $\theta=6.5^\circ, 7.5^\circ, 10^\circ$ to 60° (5° intervals); natural and enriched (96.24% in ¹⁶⁶Er) Er targets; measured E(p) (Q3d mag spect, FWHM \approx 12, $\Delta E\approx$ 1 At low energy to \approx 5 At 2.5 MeV; Enge split-pole spectrograph, FWHM \approx 15, $\Delta E\approx$ 3 for $E\leq$ 2 MeV, \approx 10 At 2.5 MeV), $\sigma(\theta)$, differential cross sections; DWBA calculations. see also [1983Da21](#).

¹⁶⁸Er Levels

| E(level) [†] | L [‡] | d σ /d Ω (25 $^\circ$) [#] | Comments |
|-----------------------|----------------|--|--|
| 0.0 | 0 | 266 | |
| 80 1 | | 21 | |
| 264 1 | | 12 | |
| 548 1 | | 2.1 | |
| 821 2 | | 3.7 | |
| 997 2 | | 12 | |
| 1195 2 | | \approx 4.5 | |
| 1217 2 | 0 | 30 | |
| 1275 2 | | 2.7 | |
| 1359 3 | | 3.0 | |
| 1411 | | 5.4 | E(level): rounded value from Adopted Levels. |
| 1422 | 0 | 21 | E(level): rounded value from Adopted Levels. d σ /d Ω (25 $^\circ$): composite peak consisting of 1411.1, 1422.2, and 1431.5 levels; triplet decomposed by assuming known energies of components and allowing intensities to vary. |
| 1432 | | 14 | E(level): rounded value from Adopted Levels. |
| 1449 3 | | 3.5 | |
| 1492 2 | | 4.5 | |
| 1573 3 | | 4.7 | |
| 1632 3 | | 7 | |
| 1654 3 | | 5.4 | |
| 1708 3 | | 2.2 | |
| 1737 3 | | 37 | |
| 1780 3 | | 2.6 | |
| 1794 3 | | 1.4 | |
| \approx 1834 | 0 | 4.9 | extracted by 1985Bu19 from complex peak. |
| 1847 3 | | 22 | |
| 1902 3 | | @ | |
| 1960 3 | | @ | |
| 1981 3 | | @ | |
| 2000 3 | | @ | |
| 2028 4 | | @ | |
| \approx 2081 | | \approx 1.5 | |
| \approx 2095 | | <1 | |
| 2173 4 | | 2.7 | |
| 2191 4 | | 3.5 | |
| 2227 10 | | 5.3 | |
| 2265 5 | (0) | 16 | |
| 2312 10 | | 8.0 | |
| 2341 10 | | 12 | |
| 2388 10 | | 7.4 | |
| 2419 10 | | 8.6 | |
| 2476 10 | | 15 | |
| 2527 5 | | 16 | |
| 2562 5 | | 10 | |
| 2613 10 | | @ | |

Continued on next page (footnotes at end of table)

 $^{166}\text{Er}(t,p)$ **1985Bu19 (continued)**

 ^{168}Er Levels (continued)

† Data are available from experiments At two different laboratories; agreement is excellent. typically, the more precise datum has been adopted here, unless noted to the contrary.

‡ DWBA analysis of angular distributions.

$d\sigma/d\Omega$ At $\theta(\text{lab})=25^\circ$ In $\mu\text{b/sr}$ (**1985Bu19**).

@ Peak obscured at 25° by large $^{12}\text{C}(t,p)$ group.