## $^{152}$Gd(d,t) 1975Lo04

| History | | | |
|---|---|---|---|
| Type | Author | Citation | Literature Cutoff Date |
| Full Evaluation | Balraj Singh | NDS 110, 1 (2009) | 20-Nov-2008 |

E=15 MeV.
$\sigma(\theta)$ data at 4 angles. DWBA calculations. Uncertainty on relative cross sections is 15% and on absolute cross sections 25%.
Other: 1967Tj01. E(d)=12 MeV. $\sigma(\theta)$ data at 3 angles.

### $^{151}$Gd Levels

| E(level) | L[‡] | S | Comments |
|---|---|---|---|
| 0 | 3 | 1.89 | L: from $\sigma(\theta)$ data (1967Tj01). |
| 109 *2* | ≤4 | 0.036 | |
| 380 *2* | 5 | 0.75 | E(level): probable $h_{9/2}$ state. |
| 395 *2* | ≤3 | 0.24 | |
| 426 *2* | ≤3 | 0.16 | |
| 587 *2* | 1[#] | 0.21 | |
| 620 *2* | ≤3 | 0.22 | |
| 671 *2* | 3,2 | 0.48 | |
| 697[†] | | | |
| 706 *2* | | | |
| 810 | ≤4 | | |
| 838 *2* | ≤3 | 0.13 | |
| 854 *2* | 6 | 1.27 | E(level): probable $i_{13/2}$ state. |
| 882[†] | | | |
| 913 *2* | 5,6 | 0.22 | E(level): probable $h_{9/2}$ state. |
| 981 *2* | 2[#] | 1.49 | E(level): probable $d_{3/2}$ state. |
| 1050 *2* | 0[#] | | E(level): probable $s_{1/2}$ state. |
| 1086 *2* | | | |
| 1159 *2* | 3,4 | 1.24 | |
| 1192 *2* | 0[#] | 0.21 | |
| 1209 *2* | 5 | 2.16 | |
| 1364 *2* | | | |
| 1478 *2* | | | E(level): reported by 1975Lo04 only. |

[†] Reported by 1967Tj01 only.
[‡] From comparison of ratio of cross sections for $^{152}$Gd($^3$He,$\alpha$) and $^{152}$Gd(d,t) with that of known state, unless otherwise stated.
[#] From $\sigma(\theta)$.