

$^{156}\text{Gd}(t,p)$  1989Lo07

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 141, 1 (2017)	1-Feb-2017

$E_t=17$  MeV. Magnetic spectrograph, FWHM  $\approx 25$  keV. Measured  $\sigma(\theta)$  from  $6^\circ$  to  $70^\circ$ . DWBA analysis.

 $^{158}\text{Gd}$  Levels

E(level) <sup>†</sup>	$T_{1/2}$ <sup>‡</sup>	L <sup>@</sup>	Comments
0	255	0	
80 7	24		
261 7	7		
534 7	3		
975 7	3 <sup>&amp;</sup>		
1043 7	8		
1196 7	20	(0,2)	E(level): Broad peak; probably consists of Adopted Levels at 1187 2 <sup>+</sup> and 1196 keV 0 <sup>+</sup> .
1266 7	3		E(level): Probably consists of Adopted Levels at 1259, 2 <sup>+</sup> ; 1263, 1 <sup>-</sup> ; and 1265 keV, 3 <sup>+</sup> .
1359 7	10		
1416 7	6		
1461 7	6	(0)	
1519 7	4 <sup>&amp;</sup>		
1554 7	1 <sup>a</sup>		
1634 7	3		E(level): Broad peak; probably includes Adopted Levels at 1635, 6 <sup>+</sup> and 1639 keV, (5 <sup>-</sup> ).
1750 7	10	0	
1860 7	5		
1912 7	5		
1941 7	1 <sup>&amp;</sup>		
1954 7	11 <sup>&amp;</sup>	(0)	E(level): Probably consists of Adopted Levels at 1952, (0) <sup>+</sup> and 1957 keV, (0 <sup>+</sup> ).
1971 7	11	(0)	
2039 7	2		
2096 7	3		
2134 7	12 <sup>a</sup>		
2237 7	10 <sup>&amp;</sup>		
2256 7	8 <sup>a</sup>		
2272 7	5		
2296 7	3		
2338 7	5		
2358 7	4		
2405 7	4		
2427 7	3		
2471 7	12		
2490 7	6		
2561 7	4		
2601 7	8		
2666 7	7		
2689 7	5	(0)	
2769 7	11		
2793 7	9		
2839 7	7 <sup>&amp;</sup>		

<sup>†</sup> Uncertainties  $\approx 7$  keV from general statement.

<sup>‡</sup> Label= $d\sigma/d\Omega(30^\circ)$  ( $\mu\text{b}/\text{sr}$ ).

<sup>#</sup> From 1989Lo07 (the angle is noted if different).

<sup>@</sup> Based on angular distributions only the L=0 can be assigned. For other L-values the spins and parities of the populated levels

Continued on next page (footnotes at end of table)

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 $^{156}\text{Gd}(t,p)$  **1989Lo07** (continued) $^{158}\text{Gd}$  Levels (continued)

cannot be determined in an unambiguous manner from the angular distributions alone.

<sup>&</sup> At 25°.

<sup>a</sup> At 35°.