^{155}**Gd(p,t)**   **1973Lo08**

	Type	Author	History Citation	Literature Cutoff Date
	Full Evaluation	N. Nica	NDS 170, 1 (2020)	16-Aug-2020

Ep=18 MeV, magnetic spectrograph with FWHM ≈ 8 keV. Measured cross sections at θ(lab)=10°, 25°, and 40°.

^{153}Gd Levels

E(level)[†]	J$^{\pi}$[‡]	L	$d\sigma/d\Omega(25°)(\mu$b/sr)	E(level)[†]	J$^{\pi}$[‡]	L	$d\sigma/d\Omega(25°)(\mu$b/sr)
0[&]	3/2$^-$	0	268	509[c] 2	3/2$^-$	0	82
42[&] 2	5/2$^-$		27	531 2	3/2$^-$	0	96
95[&] 2	7/2$^-$		8	549[@c] 2	5/2$^-$		8
111 2	5/2$^-$,3/2$^-$[#]		10	579 2			8
129 2	3/2$^-$	0	88	607 2			13
216[a] 2	3/2$^+$		19	636 2			
321 2			4	648 2			13
330[b] 2	1/2$^+$		2	663 2			
362 2			8	675 2			6
414 2			≈2	684 2			2
429 2			4	1116 2			8
448 2	5/2$^-$,7/2$^-$[#]		10				

[†] Uncertainties are from authors' general statement.

[‡] Assignments to levels below 400 keV are from earlier charged-particle reactions (1967Tj01) and ^{153}Tb ε decay (1968Ni04,1970Bo02, T. Tuurnala as quoted in 1973Lo08) and those above 400 keV are from 1973Lo08. Assignments which differ significantly from those in ^{153}Gd Adopted Levels are noted.

[#] (5/2)$^-$ or 5/2$^-$ in Adopted Levels.

[@] Doublet in Adopted Levels, one with 5/2$^-$ and the other with (3/2$^-$,5/2,7/2$^-$).

[&] Band(A): 3/2[521] band.

[a] Band(B): 3/2[402] band.

[b] Band(C): 1/2[400] band.

[c] Band(D): β-vibrational band based on 3/2$^-$ ground state.

^{155}Gd(p,t)   1973Lo08

Band(D): β-vibrational band based on 3/2$^-$ ground state

5/2$^-$ 549

3/2$^-$ 509

Band(C): 1/2[400] band

1/2$^+$ 330

Band(B): 3/2[402] band

3/2$^+$ 216

Band(A): 3/2[521] band

7/2$^-$ 95

5/2$^-$ 42

3/2$^-$ 0

$^{153}_{64}$Gd$_{89}$