

$^{71}\text{Ga}(\text{p,t})$ 1984Ro24

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 115, 1 (2014)	31-Jul-2013

Target $J^\pi=3/2^-$. E=25 MeV proton beam.

Energy resolution (FWHM)=11 keV; measured $\sigma(\theta)$ for $\theta=5^\circ$ to 60° in steps of 5° ; DWBA analysis.

 ^{69}Ga Levels

E(level) [†]	L	$\varepsilon^\#$	Comments
0	0	2.4	
318 2	2	0.28	
574? 2			ε : (<0.015) for L=2 and (<0.21) for L=4.
870 2	0	0.20	
1027 2	2	0.22	
1107 2	2+(4)	0.70	ε : (3.25) for a L=(4) component.
1337 2	2	1.60	
1488 2	2	1.125	
1527 2	0+(2)	0.040	ε : (0.07) for a L=(2) component.
1725 2	(2)+(4)	(0.075)	ε : (0.36) for a L=(4) component.
1764 2			ε : <0.36 for L=4.
1893 2	2	0.34	ε : (0.01) for a L=(0) component.
1925 2			ε : (0.2) for L=(2), (0.045) for L=(4), and <0.035 for L=(3).
1976 2	2	0.30	
2027 2	2	0.24	
2048 2	2	0.155	
2253 2	2	0.19	
2321 2	(3)	(0.15)	
2355 2			ε : (0.02) for L=(2) and (0.45) for L=(4).
2428 2	4	0.9	
2460 2			
2487 2	(3)	(0.085)	
2530 5			ε : (0.003) for L=(0) and (0.05) for L=(3).
2573 5	0	0.056	
2600 5	4	1.6	
2614 5	2	0.065	
2661 5	2	0.22	
2722 5			
2749 5	2	0.11	
2766? 5			
2796 5	2	0.18	
2841 5	3	0.12	
2964 5	4	2.3	
2981 5	2	0.19	
2995 5			
3054 5			ε : 0.12 for L=(2), 2.2 for L=(4).
3098 5	4	5.4	
3119 5			
3135 5			
3192 [‡] 5	(2)	(0.16)	
3202 [‡] 5	(0)	(0.036)	
3211 [‡] 5			
3240 5	4	7.6	
3280 5	0(+2)	0.006	ε : (0.022) for L=(2).
3299 5	2	0.075	
3315 5	2	0.15	
3328 5	2	0.135	

Continued on next page (footnotes at end of table)

$^{71}\text{Ga}(\text{p,t})$ **1984Ro24** (continued) ^{69}Ga Levels (continued)

E(level) [†]	L	$\varepsilon^{\#}$	Comments
3371 5	0(+2)	0.0077	ε : (0.03) for L=(2).
3490 5	4	2.4	
3578 5	2	0.105	
3655 5	2	0.365	
3693 5			ε : (0.005) for L=(0) and (0.105) for L=(2).
3757 5	0	0.025	
3795 5	(2)	(0.12)	
3881 5	2	0.26	
3928 5	(2)	(0.18)	
3950 5			ε : (0.105) for L=(2).
3966 5			ε : (0.0045) for L=(0) and (0.16) for L=(2).
3993 5			
4032 5	2	0.25	
4106 5	(2)	(0.11)	
4160 5	4	2.4	
4191 5	(4)	(1.9)	
4251 5	0	0.040	
4291 5	(2)	(0.2)	

[†] Uncertainties are upper limits.

[‡] Deduced from the analysis of a broad peak.

[#] Enhancement factor ε defined by: $d\sigma/d\Omega(\text{exp})=9.7N\varepsilon d\sigma/d\Omega(\text{DWUCK}) (1/(2L+1))$; where the normalization factor $N=25$. The enhancement factor for dominant transfer is given without parentheses; it is given for the second L-transfer when the improved fit is suspected to be artificial.