

$^{69}\text{Ga}(t,p)$ 1979Ve01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen		NDS 188,1 (2023)	17-Jan-2023

Target $J^\pi=3/2^-$.

1979Ve01: E=17 MeV triton beam from the Los Alamos Scientific Laboratory FN tandem. Target was $30 \mu\text{g}/\text{cm}^2$ 99.75% enriched ^{69}Ga on a thin carbon backing. Reaction products were momentum-analyzed with a Q3D spectrometer (FWHM=18 keV). Measured $\sigma(\theta)$ for $\theta(\text{lab})=15^\circ-60^\circ$ in steps of 5° . Deduced levels, L-transfers.

 ^{71}Ga Levels

E(level)	L [†]	S [‡] #	E(level)	L [†]	S [‡] #	E(level)	L [†]	S [‡] #	E(level)	L [†]	S [‡] #
0	0	1924	1716 3	(2)	19.5	2327 3	(2)	31	2658 10	2	31.7
509 3	0	23	1904 3	2	55.3	2396 3	2	68.1	2723 10	3	54.9
910 3	(0)	67.1	1937 3	(3)	23.0	2421 3	2	61	2747 10	2	39.3
965 3	2	96	2058 3	2	55.3	2449 3	3	64.1	2812 10	(4)	92
1110 3	(2)	17.7	2136 3	2	77.9	2487 3	3	108	2932 10	(3)	128
1395 3	2	96.4	2191 3	2	20.0	2529 10	(4)	76.2	2974 10	(4)	104.5
1490 3	(3)	12.3	2244 3	3	44.0	2551 10	3	63.5			
1633 3	0	129	2295 3		58.4	2614 10	3	27.7			

[†] Determined by comparison with standard L=0, 2, 3, or 4 angular distributions observed in the $^{70}\text{Ge}(t,p)$ reaction at the same incident energy.

[‡] $d\sigma/d\Omega(\text{max})$ (mb/sr).

Value at an angle where cross section is maximum.