

$^{71}\text{Ga}(\text{t,p})$ 1979Ve01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen		NDS 158, 1 (2019)	16-May-2019

$J^\pi(^{71}\text{Ga g.s.})=3/2^-$.

1979Ve01: E=17 MeV triton beam was produced from the Los Alamos Scientific Laboratory FN tandem Van de Graaff. Target was about $50 \mu\text{g}/\text{cm}^2$ 99.8% enriched Ga^2O_3 evaporated onto a thin carbon backing. Reaction products were momentum-analyzed with a Q3D magnetic spectrometer (FWHM=18 keV) and detected with a helical-cathode position-sensitive proportional counter. Measured $\sigma(E_p, \theta)$, $\theta=15^\circ-60^\circ$. Deduced levels, J, π , L-transfers. Comparisons with available data.

 ^{73}Ga Levels

E(level)	L [†]	dσ/dΩ [@]	E(level)	L [†]	dσ/dΩ [@]	E(level)	L [†]	dσ/dΩ [@]
<0.3 [‡]	0	264.3	1618 3		<6.3	2221 3	2	46.5
219 3	0	248.4	1700 3	2	76.6	2277 3	4	23.8
498 3	2	55.0	1771 3	2	55.5	2380 3	4	55.2
915 3	0	323.8	1800 3	(0) [#]	13.9	2411 3	(2)	44.9
956 3	2	77.2	1925 3	2	34.4	2467 3	(3)	35.2
1117 3	(2)	20.5	1952 3	2	68.7	2498 3	3	60.3
1235 3		<3.7	2001 3	2	132	2582 6	2	53.9
1396 3	4	13.0	2067 3	3	38.6	2726 6	(2+4)	112
1528 3		≈10	2109 3	0+(2)	42.0			
1578 3		18.2	2160 3	2	26.4			

[†] From comparisons of measured $\sigma(\theta)$ with those with known L-transfers in $^{72}\text{Ge}(\text{t,p})$ at the same beam energy (1979Ve01).

[‡] From Adopted Levels. This level is assigned by 1979Ve01 as the g.s. but should correspond to a closely-spaced level at <0.3 keV, as described in detail in Adopted Levels, Gammas dataset.

[#] The assignment considered as uncertain due to weak excitation (1979Ve01).

[@] Summed cross section ($\mu\text{b}/\text{sr}$) between 15° and 60° (1979Ve01).