

⁷⁰Ge(d, ³He), (pol d, ³He) 1978Ro14,1992Ra05

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

1992Ra05: ED=52 MeV, vector polarized d, FWHM≈100 keV; measured $\sigma(\theta)$, analyzing powers, DWBA analysis.
 1978Ro14: ED=26 MeV, FWHM=15 keV; measured $\sigma(\theta)$, DWBA analysis.

⁶⁹Ga Levels

S(β),L(β) From 1992Ra05.

E(level) [‡]	J ^π [†]	L [@]	C ² S ^{&}	Comments
0	3/2 ⁻	1	1.63	
317 7	1/2 ⁻	1	0.49	J ^π : 1/2 ⁻ (1992Ra05).
571 7	5/2 ⁻	3	1.14	
873 7	3/2 ⁻	1	0.58	
1029 7	1/2 ⁻	1	0.10	J ^π : 1/2 ⁻ (1992Ra05).
1108 7	5/2 ⁻	3	0.10	
1335 7	7/2 ⁻	3	0.49	
1488 7	7/2 ⁻	3	0.24	J ^π : 7/2 ⁻ (1992Ra05).
1714 [#] 12	5/2 ⁻	3	0.22	J ^π : 5/2 ⁻ (1992Ra05).
1890 7	3/2 ⁻	1	0.145	
1923 7	7/2 ⁻	3	0.23	J ^π : 7/2 ⁻ (1992Ra05).
1970 ^a 7		4+1		C ² S: 0.26 for L=4 and J ^π =9/2 ⁺ ; 0.033 for L=1 and J ^π =1/2 ⁻ , and 0.026 for L=1 and J ^π =3/2 ⁻ .
2250 7	(1)			C ² S: 0.037 for J ^π =1/2 ⁻ , 0.03 for J ^π =3/2 ⁻ . J ^π : 1/2 ⁻ (1992Ra05).
2425 7		3		C ² S: 1.42 for J ^π =7/2 ⁻ , 0.81 for J ^π =5/2 ⁻ . J ^π : 7/2 ⁻ (1992Ra05).
2461 7		(3)		C ² S: 0.23 for J ^π =7/2 ⁻ , 0.13 for J ^π =5/2 ⁻ .
2560 [#] 3		3	0.16	J ^π : (7/2 ⁻) (1992Ra05).
2680 [#] 3		3	0.10	J ^π : (7/2 ⁻) (1992Ra05).

[†] Used to extract spectroscopic factors by 1978Ro14, unless indicated otherwise. Supporting arguments from $\sigma(\theta)$ and analyzing power from 1992Ra05 are given in comments.

[‡] From 1978Ro14, unless indicated otherwise.

[#] From 1992Ra05. These authors divide their data from 3 MeV to 5.8 MeV excitation energy into 15 bins with widths varying from 20 keV to 50 keV and give spectroscopic factors derived for these bins. However, these bin energies do not correspond to excitation energies observed in other reactions.

[@] From DWBA analysis of $\sigma(\theta)$ by 1978Ro14, unless indicated otherwise.

[&] From 1978Ro14, unless indicated otherwise.

^a Doublet.