

$^{71}\text{Ga}(^3\text{He,d})$ 1975Ar08

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	D. Abriola(a), A. A. Sonzogni		NDS 111,1 (2010)	1-May-2009

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

E=25 MeV, FWHM=18 keV, split-pole magnetic spectrometer, $\sigma(\theta)$, $\theta=5^\circ-61^\circ$. DWBA without nonlocal and finite-range corrections.

Other: 1976HaYN.

 ^{72}Ge Levels

E(level)	L	$(2J+1)C^2S^\dagger$	Comments
0	1	2.50	
690 3	1	1.63	
835 3	1+3	0.28+0.43	
1465 5	1	0.09	L: possible admixture of L=3 with $(2J+1)C^2S<0.04$.
1725 5	3	0.19	
2029 5	1	0.02	L: possible admixture of L=3 with $(2J+1)C^2S<0.003$.
2062 3	1+3	0.03+0.28	
2404 3	1	0.40	L: possible admixture of L=3 with $(2J+1)C^2S<0.08$.
2466 3	3	0.80	
2516 3	4	1.90	L: possible admixture of L=2 with $(2J+1)C^2S<0.13$.
2754 3	1+3	0.43+0.43	
2897 5	1	0.03	L: possible admixture of L=3 with $(2J+1)C^2S<0.008$.
2949 3	1+3	0.39+1.56	
3034 3	1+3	1.77+1.77	
3073 3	3	4.95	
3094 3	1+3	0.69+3.85	
3179 3	3	1.32	
3223 3	1+3	0.46+0.58	
3324 3	1+3	0.06+0.15	
3357 3	1+3	0.46+0.46	
3422 3	1+3	0.49+0.51	
3436 3	1+3	0.07+2.45	
3468 3	4+2	0.73+0.08	L: possible admixture of L=0 with $(2J+1)C^2S<0.02$.
3506 3	1+3	0.50+1.15	
3565 3	‡		
3614 3	1	0.82	L: possible admixture of L=3 with $(2J+1)C^2S<0.17$.
3662 3	1+3	0.62+0.63	
3691 3	1+3	0.16+0.09	
3777 3	1+3	0.25+0.57	
3815 3	4+2	0.46+0.02	L: possible admixture of L=0 with $(2J+1)C^2S<0.01$.
3867 5			
3895 3	1+3	0.42+1.80	
3975 3	‡		
4002 3	1+3	0.18+0.41	
4047 3	1+3	1.41+1.74	
4092 5	1+3	0.17+0.12	
4147 5	1+3	0.14+0.12	
4171 3	1+3	0.37+0.68	
4224 5	4+2	0.48+0.12	
4245 5	3	0.60	L: possible admixture of L=1 with $(2J+1)C^2S<0.02$.
4290 3	1+3	0.25+0.84	
4315 5	1+3	0.33+0.12	
4330 5	‡		
4374 5	1+3	0.06+0.50	

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$^{71}\text{Ga}(^3\text{He,d})$ 1975Ar08 (continued) ^{72}Ge Levels (continued)

<u>E(level)</u>	<u>L</u>	<u>(2J+1)C²S[†]</u>	<u>Comments</u>
4419 5	(1+3)		
4453 3	4+2+0		(2J+1)C ² S: (2J+1)C ² S=2.38, 0.05, 0.01, respectively, with 1g7/2 assumed for L=4 transfer.
4483 5	‡		
4512 5	4+2+0		(2J+1)C ² S: (2J+1)C ² S=0.64, 0.04, 0.01, respectively, with 1g7/2 assumed for L=4 transfer.
4575 5	(1+3)		
4620 3	1+3	0.12+0.29	
4650 5	4+2	0.46+0.05	
4679 3	4+2	1.14+0.06	
4705 5			
4755 5	4+2	0.43+0.05	L: possible admixture of L=0 with (2J+1)C ² S<0.02.
4840 3	1+3	0.08+0.20	
4875 5	(1+3)		
4903 5			
5004 5			
5076 5	4+2+0		(2J+1)C ² S: (2J+1)C ² S=1.23, 0.02, 0.02, respectively, with 1g7/2 assumed for L=4 transfer.
5100 3	4+2	1.70+0.09	L: possible admixture of L=0 with (2J+1)C ² S<0.02.
5160 3	4+2	1.26+0.07	L: possible admixture of L=0 with (2J+1)C ² S<0.02.

† Calculated assuming 3s1/2, 2p3/2, 2d5/2, 1f5/2, 1g9/2 for L=0, 1, 2, 3, 4 transfers, respectively, except where noted otherwise. Normalization constant N=4.42.

‡ Choice cannot be made between L=1+3 and L=4+2 (+0) for this level; possible multiplet.