

$^{72}\text{Ge}(\text{p,p}')$ , (pol p,p') 1986Ro08

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

(p,p'): E=22 MeV,  $\sigma(\theta)$ , FWHM=10 keV ([1986Ro08](#)); E $\approx$ 14.5 MeV, FWHM=70 keV,  $\sigma(\theta)$ , coupled-channels ([1970Cu03](#)); E $\approx$ 12 MeV ([1964Da21](#)).

(pol p,p), (pol p,p') $^{2+}$ : E=11.5 MeV,  $\sigma(\theta)$ , A( $\theta$ ), coupled-channels calculation assuming a vibrational model ([1985Se05](#)).

(pol p,p') $^{4+}$ : E=65 MeV,  $\sigma(\theta)$ , A( $\theta$ ), coupled-channels analysis ([1985MaZO](#)).

Others: [1967Br10](#), [1970Pe09](#).

 $^{72}\text{Ge}$  Levels

See [1970Cu03](#) for other values of  $\beta_L$  and B(EL) deduced from  $\beta_L$ .

E(level) $^\dagger$	L $^\circ$	Comments
0	0	
693 4	0	
834 4	2	$\beta_2=0.203$ 10 ( <a href="#">1985Se05</a> )
1464 4	2	
1728 4	4	$\beta_2=0.216$ ; $\beta_4=0.016$ ( <a href="#">1985MaZO</a> )
2027 4		
2043 20	(2)	E(level): from <a href="#">1970Cu03</a> , probably the same as the 2065 level in the adopted level.
2401 4	2+4	L: from <a href="#">1970Cu03</a> , probably a doublet.
2467 4	(4)	
2514 4	3	
2572 10		E(level): from <a href="#">1964Da21</a> .
2753 4		
2772 $^\ddagger$ 4		
2894 4	0	
2943 $^\#$ 4	3	
3034 $^\ddagger$ 4		
3072 4	4	
3097 4	2	
3130 4	(5)	
3181 4	(4)	
3250 4	4	
3327 $^\ddagger$ 4		
3344 $^\ddagger$ 4		
3361 4		
3406 $^\#$ 4		
3422 4	2	
3439 $^\ddagger$ 4	(6)	
3465 4	1	
3511 4	2	
3529 4	(4)	
3556 4	1	
3571 4		
3591 4	4	
3624 10	(1)	
3637 10		
3663 $^\ddagger$ 10	(6)	
3674 10	(3)	
3688 10	7	
3709 10		

Continued on next page (footnotes at end of table)

$^{72}\text{Ge}(\text{p},\text{p}')$ , (pol p,p') 1986Ro08 (continued) $^{72}\text{Ge}$  Levels (continued)

<u>E(level)<sup>†</sup></u>	<u>L<sup>@</sup></u>	<u>E(level)<sup>†</sup></u>	<u>L<sup>@</sup></u>	<u>E(level)<sup>†</sup></u>	<u>L<sup>@</sup></u>	<u>E(level)<sup>†</sup></u>	<u>L<sup>@</sup></u>
3745 10		3876 10		3964 10		4028 10	
3772 10	4	3881 10		3974 10		4035 10	1
3784 10		3890 10		3985 10		4052 10	
3797 10		3904 10		3995 10	1	4065 10	
3832 10		3915 <sup>#</sup> 10		4007 10		4076 10	
3858 10	4	3937 10	5	4020 10		4082 10	4

<sup>†</sup> From 1986Ro08, except as noted.

<sup>‡</sup> Doublet from angular distribution.

<sup>#</sup> Multiplet from angular distribution.

<sup>@</sup> From coupled-channel analysis of  $\sigma(\theta)$  (1986Ro08).