

$^{72}\text{Ge}(\text{n},\text{n}'\gamma)$ 1970Ch15

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

E=0.5-2.55 MeV, FWHM=5-7 keV, measured $\gamma(\theta)$ with pulsed beam tof system, Hauser-Feshbach calculations (1970Ch15).

E=0.3-1.5 MeV, energy resolution $\approx$ 20 keV, tof, $\sigma(\theta)$, Hauser-Feshbach calculations (1969Li12).

E=4.75 MeV, delayed coincidence (1968Ei02).

Delayed-coincidence measurement (1968Ma09).

Others: 1961Ni03, 1967Do08, 1967Mu21, 1969Ko34, 1971Br18, 1971Ko26, 1971Uh03, 1972Ko17, 1972Sm08, 1972St39.

 ^{72}Ge Levels

E(level)	J^π [†]	$T_{1/2}$	Comments
0	0 ⁺		
692 3	0 ⁺	427 ns 11	$T_{1/2}$: weighted average of 422 ns 13 (1968Ei02) and 440 ns 20 (1968Ma09).
834.8 4	2 ⁺		
1465.1 4	2 ⁺		
1730.2 7	4 ⁺		
2065.0 7	3 ⁺		

[†] Adopted values. $\gamma(\theta)$ measurements of 1970Ch15 are consistent with adopted J^π .

 $\gamma(^{72}\text{Ge})$

$E_i(\text{level})$	J_i^π	E_γ [†]	I_γ [‡]	E_f	J_f^π	Comments
692	0 ⁺	692 3		0	0 ⁺	E_γ : observed in Ge(Li) as a peak produced by deexcitation electrons and accompanying x-rays (1969Li12).
834.8	2 ⁺	834.4 5		0	0 ⁺	
1465.1	2 ⁺	630.0 5	86	834.8	2 ⁺	δ : $-5 +3-1$ or $+0.10 10$ from $\gamma(\theta)$.
		1465.5 5	14	0	0 ⁺	
1730.2	4 ⁺	895.4 5		834.8	2 ⁺	
2065.0	3 ⁺	1230.2 5		834.8	2 ⁺	

[†] From 1970Ch15, except the 692 γ .

[‡] Branching ratio for 1465.2 level from 1970Ch15; uncertainty not given.

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Level Scheme

Intensities: % photon branching from each level

