Coulomb excitation 1972An17

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

^{69}Ga(α,$\alpha'\gamma$): 1972An17: Eα=6-8 MeV; measured γ yields ($\theta(\gamma)$=55°).
1974Le34: projectile or its energy not specified; measured $T_{1/2}$ by DSA.
1969Sh12: Eα=3.5 MeV; pulsed beam, measured $T_{1/2}$ by a,γ(t).
1974LiZV: Eα=5-7.5 MeV; measured Eγ, Iγ, $\gamma(\theta)$ and $\gamma\gamma(\theta)$.
^{69}Ga(^{14}N,^{14}N'γ): 1964Al28: E(^{14}N)=16.1 MeV; measured $\gamma(\theta)$.
1965Al23: E(^{14}N)=16.2, 17.7 MeV; measured γ-linear polarization.
Data are taken mostly from 1972An17, also from 1964Al28, 1965Al23, 1969Sh12, 1974Le34, and 1974LiZV. Others: 1956Fa29, 1973AnZW, and 1973AnZX.

^{69}Ga Levels

E(level)†	J$^\pi$‡	$T_{1/2}$#	Comments
0	3/2$^-$		
318.7	1/2$^-$	<70 ps	B(E2)↑=0.0068 *4* B(E2)↑: weighted average of 0.0066 *10* (1972An17) and 0.0069 *5* (1974LiZV). J$^\pi$: 1/2$^-$,3/2$^-$ from measurement of γ linear polarization (1965Al23) and $\gamma(\theta)$ (1964Al28). $T_{1/2}$: by delayed coincidence with pulsed beam (1969Sh12).
574.1	5/2$^-$	7@ ps *3*	B(E2)↑=0.00072 *12* B(E2)↑: average of 0.00085 *13* (1972An17) and 0.00060 *6* (1974LiZV). J$^\pi$: 5/2 from $\gamma(\theta)$ (1974LiZV).
872.0	3/2$^-$	0.22 ps *5*	B(E2)↑=0.0068 *17* B(E2)↑: average of 0.0085 *13* (1972An17) and 0.00513 *41* (1974LiZV).
1028.5	1/2$^-$		B(E2)↑=0.0029 *8* B(E2)↑: average of 0.0037 *8* (1972An17) and 0.00212 *28* (1974LiZV).
1106.8	5/2$^-$	0.15 ps *4*	B(E2)↑=0.031 *3* $T_{1/2}$: 0.149 ps *26* from B(E2), adopted branching, and δ. B(E2)↑: average of 0.034 *5* (1972An17) and 0.0273 *19* (1974LiZV).
1336.6	7/2$^-$	0.76 ps *8*	B(E2)↑=0.033 *5* $T_{1/2}$: 0.76 ps *12* from B(E2) and adopted branching. B(E2)↑: Average of 0.038 *6* (1972An17) and 0.0288 *26* (1974LiZV). J$^\pi$: 7/2 from $\gamma(\theta)$ (1974LiZV).

† From Adopted Levels.
‡ From Adopted Levels. Supporting arguments from this reaction data set are indicated.
# From 1974Le34 by DSA, unless noted otherwise. For DSA data the uncertainty has been increased by 15% to include uncertainty in stopping powers.
@ From B(E2) and adopted branching and δ.