^{71}Ga(e,e$'$)   **1994Ri07**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 188,1 (2023)	17-Jan-2023

1994Ri07: E=132.4-357.7 MeV electron beams from NIKHEF-K electron scattering facility. Target was ^{71}Ga$_2$O$_3$ (99.6% enriched). Scattered electrons were momentum-analyzed with high-resolution QDD spectrometer (FWHM=35-55 keV forward-angle data and 70 keV for backward-angle data). Measured excitation functions. Deduced levels, longitudinal, transverse form factors, transition charge, current densities, transition strengths from Fourier-Bessel, Gaussian polynomial analysis. Comparisons with theoretical calculations of particle-vibration coupling model (PVCM) and quasiparticle-cluster vibration model (QCVM).

1991Ri08 (from the same group as 1994Ri07): E=132-358 MeV; measured $\sigma(\theta, E(e'))$. Deduced B(E2) and B(M1) for 390-keV level.

^{71}Ga Levels

B(E2)↑ given under comments are from 1994Ri07.

E(level)	J$^{\pi\ddagger}$	Comments
0	3/2$^-$	
390 3	1/2$^-$	B(E2)↑=0.00017 14
		B(M1)↑=0.83 34 (1991Ri08)
		Other B(E2)=0.00013 10 (1991Ri08).
502† 3	5/2$^-$&3/2$^-$	E(level): composite of 487 and 511 levels.
714 3		
912 3	3/2$^-$	B(E2)↑=0.00056 33
966 3	5/2$^-$	B(E2)↑=0.0112 37
1112† 3	7/2$^-$&1/2$^-$	E(level): composite of 1107 and 1109 levels.
1397 3	7/2$^-$	
1497† 3		E(level): composite of 1476, 1494 and 1498 levels.
1632 3	3/2$^-$	B(E2)↑=0.0012 4
1712† 3	1/2$^+$&5/2$^-$	E(level): composite of 1702 and 1720 levels.
1753 3	3/2$^-$	
1899 6	5/2$^-$	
1936 6	(3/2$^-$)	
1989 6	5/2$^-$,7/2$^-$	
3.25×10^3 25		E(level): wide bump between 2900 and 3600 keV.

† Composite structure of two or more levels.
‡ From the Adopted Levels.