Coulomb excitation

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yang Dong, Huo Junde	NDS 128, 185 (2015)	10-Jul-2015

1961Mc18: E(α)=6 MeV.
1978Ro12: E(α)=15, 18 MeV.
1979Po16: E(^{12}C)=16-32 MeV, E(^{13}C)=16-32 MeV.
1976Le12: E(^{12}C)=18-35 MeV, E(^{13}C)=18-35 MeV.
1960Ad01: E(^{16}O)=30.6 MeV.
1979Po08: E(^{16}O)=30-42 MeV, E(^{18}O)=30-42 MeV.
1987St07: E(^{16}O)=36 MeV, E(^{81}Br)=220,230,240 MeV.
1972WaYZ: E(^{16}O)=21-30 MeV, E(^{35}Cl)=60-79 MeV, also DSAM.
1975To06: E(^{32}S)=60 MeV, reorientation effect.
2000Er01, 2000Er06: E(^{52}Cr)=110-120 MeV, ^{52}Cr from ^{12}C(^{48}Ti,2α), measured γ-ray in coincidence with carbon ions using 12.7 cm *12.7 cm NaI(Tl) as well as 9 cm *9 cm BAF2 scintillators.
Data are from 2000Er01, except as noted.

^{52}Cr Levels

E(level)	J$^{\pi}$[†]	T$_{1/2}$[‡]	Comments
0.0	0$^+$		
1434	2$^+$	0.783 ps *21*	g=1.206 *64* (2000Er01) B(E2)↑=0.056 *3*; Q=−0.14 *8* (1975To06) B(E2)↑: From weighted average of 0.066 *3* (1975To06), 0.069 *7* (1972WaYZ), 0.072 *9* (1966Mc18), 0.061 *5* (1979Po16), 0.059 *5*, 0.054 *5* (1979Po08), 0.060 *15* (1960Ad01), 0.062 *12* (1960Le07), 0.062 *22* (1960An09), 0.048 *2* (1965Si02), and 0.043 *9* (1967Af03). Others: 0.061 (1976Le12), 0.0588, 0.0933 (1978Ro12). T$_{1/2}$: Other: 0.60 ps *9* DSAM (1972WaYZ).
2370	4$^+$	6.7 ps *+35−17*	

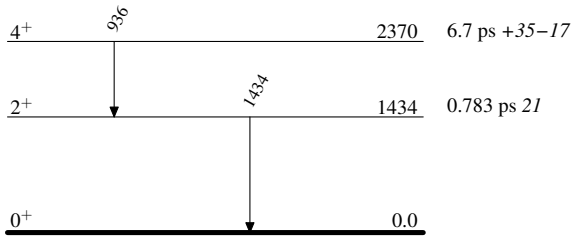
[†] From Adopted Levels.
[‡] DSAM.

γ(^{52}Cr)

E$_\gamma$	E$_i$(level)	J$_i^{\pi}$	E$_f$	J$_f^{\pi}$
936	2370	4$^+$	1434	2$^+$
1434	1434	2$^+$	0.0	0$^+$

Coulomb excitation

Level Scheme



$^{52}_{24}Cr_{28}$