Coulomb excitation 1974Ba45

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 93, 33 (2001)	11-May-2001

1974Ba45: (^{16}O,^{16}Oγ) E=42, 44.8 MeV.
1988Du10: (^{35}Cl,^{35}Cl′γ) E=70 MeV. Measured g-factor by $\gamma(\theta$,H) using transient fields.
1985Gr17: (^{12}C,^{12}C′); (^{14}N,^{14}N′); (^{16}O,^{16}O′) E=60 MeV. Measured g-factor by $\gamma(\theta$,H) using transient fields.
1981Sh15: (^{32}S,^{32}S′) E=80 MeV. Measured g-factor by $\gamma(\theta$,H) using transient fields.
1976Bo12: (α,α′) E=10, 11 MeV; (^{16}O,^{16}O′) E=30-54 MeV. Measured Q by reorientation method.
1974Ba45: (α,α′) E=8, 10 MeV; (^{16}O,^{16}O′) E=42, 44.8 MeV. Measured B(E2), Q.
1974La05 (also 1974LaZF): (^{32}S,^{32}S′γ) E=50-65 MeV. Measured Q by reorientation method.
1970LaZX (also 1970LaZS): (^{14}N,^{14}N′γ) E=40-49 MeV. Deduced β_2, β_3.
1970Ch01: (α,α′) E=8.5-10 MeV; (^{16}O,^{16}O′) E=30-42 MeV. Measured B(E2), Q, reorientation method.
1969He11 (also 1974Hu01): (^{16}O,^{16}Oγ). Measured g factor by $\gamma(\theta$,H). Data reanalyzed by 1974Hu01.
1965Ro09: (α,α′γ) E=6-9 MeV. Measured Eγ.
1963Ha20: (α,α′γ). A 3$^-$ level at 2320 proposed from a weak 1470γ.
1962Ga13: (^{14}N,^{14}N′γ) E=53 MeV. Measured B(E2).
1958St32: (p,p′γ) E=3-3.3 MeV; (α,α′γ) E=9,10 MeV. Measured B(E2).
1956Te26: (α,α′γ) E=6.5 MeV. Measured B(E2).

^{130}Te Levels

E(level)	J$^\pi$[†]	$T_{1/2}$	Comments
0.0	0$^+$		
840	2$^+$	2.30 ps *5*	B(E2)↑=0.295 *6* g=+0.29 *5* (1988Du10) Q=−0.15 *10* (1989Ra17,1976Bo12) B(E2)↑: weighted average of 0.296 *6* (1976Bo12), 0.290 *11* (1974Ba45), 0.302 *16* (1970LaZX). Others: 0.30 *3* (1970Ch01), 0.34 *3* (1962Ga13,1958St32), 0.26 *5* (1956Te26). g: from $\gamma(\theta$,H) in Coul. ex. (1988Du10,1981DuZX). Others: +0.33 *8* (1985Gr17), +0.29 *6* (1981Sh15), +0.32 *9* (1974Hu01,reanalyzed value of 1969He11). Q: from reorientation method in Coul. ex. for positive sign of the interference term (1976Bo12). Others: −0.14 *12* (1974Ba45), −0.08 *8* (1974La05), −0.19 *15* (1970Ch01). For negative sign of the interference term, the values are: −0.07 *12* (1976Bo12), −0.09 *12* (1974Ba45), 0.00 *8* (1974La05), −0.12 *15* (1970Ch01). $T_{1/2}$: from B(E2).
1589	2$^+$		
1633	4$^+$		
1880	2$^+$		
2730?	3$^-$		B(E3)↑=0.061 *+20−35* (1970LaZX)

[†] From Adopted Levels.

γ(^{130}Te)

E$_\gamma$[†]	E$_i$(level)	J$^\pi_i$	E$_f$	J$^\pi_f$	Comments
749	1589	2$^+$	840	2$^+$	
793	1633	4$^+$	840	2$^+$	
840	840	2$^+$	0.0	0$^+$	
1040	1880	2$^+$	840	2$^+$	
1589	1589	2$^+$	0.0	0$^+$	
1890[‡]	2730?	3$^-$	840	2$^+$	E$_\gamma$: From 1970LaZX.

Continued on next page (footnotes at end of table)

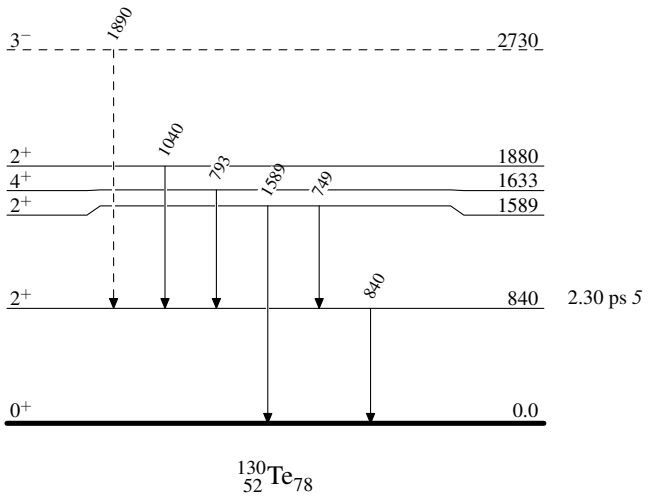
Coulomb excitation 1974Ba45 (continued)

$\gamma(^{130}Te)$ (continued)

† From level-energy differences.
‡ Placement of transition in the level scheme is uncertain.

Coulomb excitation 1974Ba45

Level Scheme



$^{130}_{52}Te_{78}$