Coulomb excitation　　1970LaZM

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	H. Iimura, J. Katakura, S. Ohya	NDS 180, 1 (2022)	1-Oct-2021

1956Te26: (α,α') E=6.5 MeV.
1958St32: (p,p') E≈3, 9 MeV.
1962Ga13: (^{14}N,^{14}N') E=53 MeV.
1965Ro09: (α,α') E=6-9 MeV.
1967St16: (α,α') E=9-12 MeV, (^{16}O,^{16}O') E=37-43 MeV.
1969He11: (^{16}O,^{16}O') IMPAC.
1968La26, 1970LaZM: (^{14}N,^{14}N') E=40-49 MeV.
1974Ba45: (α,α') E=10 MeV, (^{16}O,^{16}O') E=42 MeV.
1975Kl07: (α,α') E=8.5-17, (^{16}O,^{16}O') E=39-44 MeV.
1975Ra24: (^{32}S,^{32}S') E=59.0, 65.0 MeV.
1979Cl05: (^{22}Ne,^{22}Ne') E=93.5 MeV; mutual excitations of 2^+ states in ^{22}Ne and ^{126}Te, coupled-channel analysis.
1981Sh15: (^{32}S,^{32}S') E=80 MeV; measured g(2^+) by transient field technique.
1988Du10: (^{35}Cl,^{35}Cl') E=70 MeV; measured g(2^+) by transient field technique.
2007St24: (^{58}Ni,^{58}Ni') E=195 MeV; measured g(2^+) by transient field technique.
2017St11: ^{50}Ti(^{126}Te,^{126}Te') E=390 MeV; measured g(2^+) by recoil-in-vacuum technique.
Others: 1963Ha20, 1966Bo19, 1971KlZT, 1974Hu01.

^{126}Te Levels

E(level)	J$^{\pi\ddagger}$	T$_{1/2}{}^{\dagger}$	Comments
0.0	0^+		
666.5 *8*	2^+	4.56 ps *8*	B(E2)↑=0.471 *6*.
			B(E2)↑:from weighted av of 0.479 *11* (1974Ba45), 0.487 *35* (1967St16), 0.510 *25* (1970LaZM), 0.457 *14* (1977Sa04), 0.467 *7* (1975Kl07), others; 0.420 *40* (1968La26), 0.532 *37* (1958St32), 0.32 *6* (1956Te26).
			Q=−0.28 *10* or −0.20 *10*.
			Q:from 1974Ba45 for + or − sign of interference term. others: −0.40 *10* or −0.24 *8* (1967St16), −0.20 *9* or −0.10 *9* (1975Ra24), −0.14 *11* or +0.02 *11* (1975Kl07) (for + or − sign of interference term, respectively).
			g(2^+)=+0.338 *17*.
			from 2007St24. others: +0.318 *10* (2017St11) using recoil-in-vacuum method and calibration data for Te isotopes, +0.332 *9* (2017St11) using calibration data excluding ^{125}Te, 0.31 *4* (1988Du10), 0.31 *8* (reanalyzed value by 1974Hu01 from IMPAC data reported by 1969He11), 0.19 *3* (1981Sh15).
			T$_{1/2}$: from B(E2)↑=0.471 *6*.
1359.5 *13*	4^+	2.8 ps +*21−9*	B(E2)↑=0.23 *10*.
			B(E2)↑:(2^+ to 4^+) was deduced from observation of a weak 693γ in (667γ)(γ) coin (1967St16).
1425 *5*	2^+	0.78 ps +*25−15*	B(E2)↑=0.0042 *9*.
			B(E2)↑:from weighted av of 0.004 *1* (1970LaZM) and 0.0047 *15* (1962Ga13).
			T$_{1/2}$: for Iγ(1420γ)=6.66% *18*.
2387 *5*	3^-		B(E3)↑=0.117 *20*.
			B(E3)↑:from observation of a weak 1720γ in (^{14}N')(γ) coin (1970LaZM).

† Calculated from adopted B(E2), unless otherwise noted.
‡ From Adopted Levels.

Coulomb excitation   **1970LaZM** (continued)

$\gamma(^{126}\text{Te})$

E_γ	E_i(level)	J^π_i	E_f	J^π_f
666.5 *8*	666.5	2^+	0.0	0^+
693	1359.5	4^+	666.5	2^+
758 *5*	1425	2^+	666.5	2^+
1720 *5*	2387	3^-	666.5	2^+

Coulomb excitation   1970LaZM

Level Scheme

$^{126}_{52}$Te$_{74}$