^{35}Cl(^{3}He,t) 1976Be08

$J^{\pi}=3/2^{+}$ for ^{35}Cl ground state.

1976Be08: ^{35}Cl(^{3}He,t)^{35}Ar is studied in an attempt to search for the member of T=3/2 isobaric quartets in ^{35}Ar. A 35-MeV ^{3}He beam from the Michigan State University cyclotron impinged on a 200 μg/cm^{2} Li-^{35}Cl target. Tritons were detected using a scintillator-proportional counter detector system at the focal plane of the Enge split-pole spectrograph. A T=3/2, $3/2^{+}$ level at 5537 keV *25* in ^{35}Ar was observed in ^{33}S(^{3}He,n)^{35}Ar (1975Da14) but causing an IMME breakdown. 1976Be08 measured the ^{35}K g.s. mass using ^{40}Ca(^{3}He,^{8}Li)^{35}K and predicted the T=3/2 member in ^{35}Ar to be 5579 keV *14*. 1976Be08 did not find new peaks in ^{35}Cl(^{3}He,t)^{35}Ar between 5484 keV *10* and 5591 keV *10* that were already known from ^{36}Ar(^{3}He,α)^{35}Ar (1973Be26).

^{35}Ar Levels

E(level)[†]
4721
4782
5116
5205
5387
5484
5591
5911
6033

[†] From 1973Be26, also observed in 1976Be08 without reporting energy values.