

---

 $^{35}\text{Cl}(^3\text{He},t)$  **1976Be08**

---

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

**1976Be08**:  $^{35}\text{Cl}(^3\text{He},t)^{35}\text{Ar}$  is studied in an attempt to search for the member of T=3/2 isobaric quartets in  $^{35}\text{Ar}$ . A 35-MeV  $^3\text{He}$  beam from the Michigan State University cyclotron impinged on a  $200\text{ }\mu\text{g}/\text{cm}^2$  Li- $^{35}\text{Cl}$  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  $^{35}\text{Ar}$  was observed in  $^{33}\text{S}(^3\text{He},n)^{35}\text{Ar}$  (**1975Da14**) but causing an IMME breakdown. **1976Be08** measured the  $^{35}\text{K}$  g.s. mass using  $^{40}\text{Ca}(^3\text{He},^8\text{Li})^{35}\text{K}$  and predicted the T=3/2 member in  $^{35}\text{Ar}$  to be 5579 keV 14. **1976Be08** did not find new peaks in  $^{35}\text{Cl}(^3\text{He},t)^{35}\text{Ar}$  between 5484 keV 10 and 5591 keV 10 that were already known from  $^{36}\text{Ar}(^3\text{He},\alpha)^{35}\text{Ar}$  (**1973Be26**).

---

 $^{35}\text{Ar}$  Levels

---

E(level)<sup>†</sup>

4721  
4782  
5116  
5205  
5387  
5484  
5591  
5911  
6033

<sup>†</sup> From **1973Be26**, also observed in **1976Be08** without reporting energy values.