

${}^{40}\text{Ca}({}^3\text{He}, {}^8\text{Li})$ **1976Be08**

1976Be08: ${}^{40}\text{Ca}({}^3\text{He}, {}^8\text{Li}){}^{35}\text{K}$ is studied using 73.7- and 75.8-MeV ${}^3\text{He}$ beams produced by the Michigan State University cyclotron. Targets were 370 and 190 $\mu\text{g}/\text{cm}^2$ enriched ${}^{40}\text{Ca}$ on a 20 $\mu\text{g}/\text{cm}^2$ natural carbon backing. ${}^8\text{Li}$ particles were detected using a scintillator-proportional counter detector system at the focal plane of the Enge split-pole spectrograph. Measured the cross section of leading to ${}^{35}\text{K}$ g.s. at 8° . Deduced levels and the mass excess of ${}^{35}\text{K}$. Also see [1976BeXJ](#) and [1976BeZJ](#).

1976Be08: ${}^{35}\text{Cl}({}^3\text{He}, t){}^{35}\text{Ar}$ is studied by impinging a 35-MeV ${}^3\text{He}$ beam on a 200 $\mu\text{g}/\text{cm}^2$ Li- ${}^{35}\text{Cl}$ target using the same setup in an attempt to search for the member of T=3/2 isobaric quartets in ${}^{35}\text{Ar}$. 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. No peak is observed in [1976Be08](#) between 5484 keV 10 and 5591 keV 10 already known from [1973Be26](#).

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

<u>E(level)</u>	<u>J^π[†]</u>
0	
1560 40	$1/2^+$
2690 50	$(5/2^+)$

[†] proposed by [1976Be08](#) based on mirror levels in ${}^{35}\text{S}$.