

RADIATIVE CAPTURE OF TRITONS BY ${}^7\text{Li}$

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The preliminary results of excitation function measurements in the reactions ${}^7\text{Li}(t, \gamma){}^{10}\text{Be}$ and ${}^7\text{Li}(t, \alpha){}^6\text{He}$ are shown in Figs. 1 and 2. The prominent feature of these data is an evident resonant structure which can be associated with 17.79 MeV resonant state in ${}^{10}\text{Be}$. Because of the strong inhibition due to the centrifugal barrier the values of orbital angular momentum greater than 1 can not have significant effect on the formation of this resonance and possible J^π values of the 17.79 MeV state are $J^\pi = 0^+, 1^\pm, 2^\pm, 3^+$. Since the strong evidence was seen for 17.79 MeV state in the ${}^7\text{Li}(t, \alpha){}^6\text{He}$ reaction the most likely assignments of a state are $J^\pi = 0^+, 1^\pm$ or 2^+ and $T = 1$.

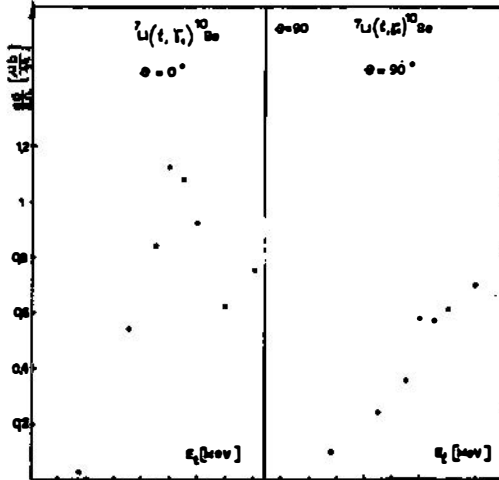


FIG. 1

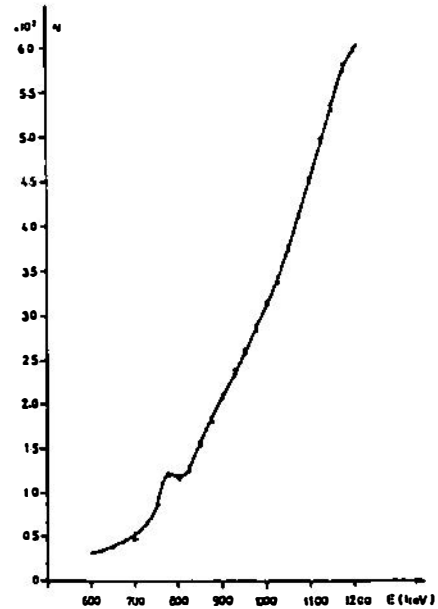


FIG. 2