

${}^7\text{Li}(\pi^-,d)$  1990Am04

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. E. Purcell, C. G. Sheu	ENSDF	28-Feb-2019

Cohen, et al., Phys. Lett 14 (1965) 242. The energy spectrum of deuterium products was measured following  ${}^7\text{Li}(\pi^-,d)$  reactions on  ${}^7\text{Li}$ . No indication of  ${}^5\text{H}$  resonances was observed in the data.

[1969Mi10](#): A 100 MeV  $\pi^-$  beam from the NASA Space Radiation Effects Laboratory was degraded and stopped in a natural Li target. The opening angles of resulting  $d+t$  pairs were analyzed in search of  ${}^5\text{H}$  resonances. Upper limits were placed on  ${}^5\text{H}$  production.

[1990Am04](#): The experiments were conducted at Leningrad Institute of Nuclear Physics using pion beams stopped by  ${}^6,7\text{Li}$  targets. Observing the d spectrum from  ${}^7\text{Li}$  led to a  ${}^5\text{H}$  state with energy  $E_{\text{res}}=9.1$  MeV 7 and width  $\Gamma=7.4$  MeV 6.

See theoretical analysis in ([1969Ko15](#)).

 ${}^5\text{H}$  Levels

<u>E(level)<sup>†</sup></u>	<u><math>\Gamma</math></u>	<u><math>E_{\text{res}}({}^3\text{H}+2n)</math>(MeV)</u>
$6.7 \times 10^3$ 8	7.4 MeV 6	9.1 7

<sup>†</sup> From  $E_{\text{res}} - E_{\text{g.s.}} = E_{\text{res}} - 2.4$  MeV 3.