$^{14}C(^{7}Li,^{3}He)$ 1980KrZX

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	R. Spitzer, J. H. Kelley	ENSDF	30-Jun-2021

1980KrZX: The $^{14}C(^{7}Li,^{3}He)$ reaction was measured using E(^{7}Li)=32, 42, 48 MeV beams at Strasbourg using a ΔE-ΔE-E telescope to detect ^{3}He reaction products at θ=32°. Evidence for three states is observed; they are presumably $^{18}N^{*}$(0,0.53,0.83 MeV) with ΔM=13.29 MeV *6* for the ground state. Shell model predictions for the lowest six states are given. Subsequent measurements indicate the lowest state observed is a doublet.

^{18}N Levels

E(level)[‡]	Comments
0[†]	E(level): ΔM=13.29 MeV *6*.
530 *60*	
830 *60*	

[†] The ground state was later resolved as a doublet in $^{18}O(^{7}Li,^{7}Be)$ (1983Pu01).
[‡] Energies deduced in this work are unreliable because of the low-lying doublet.