^{10}B(^{14}N,^{14}B) 2002Le16,2003Le26

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Narijauskas, J. H. Kelley, C. G. Sheu	ENSDF	20-July-2017

2002Le16,2003Le26.

The authors studied the unbound ^{10}N nucleus at GANIL using the ^{10}B(^{14}N,^{14}B)^{10}N multinucleon transfer reaction. A ^{14}N beam with E(^{14}N) = 30 MeV/nucleon collided with a ^{10}B sandwiched target. Ejectiles were momentum analzyed at θ=1.2°−4.5° using the SPEG spectrometer.

A l=0 resonance was observed to be 2.6 MeV *4* above the ^{9}C+p threshold and the width was 2.3 MeV *16*. This work is credited with the first observation of ^{10}N (2012Th01).

^{10}N Levels

E(level)[†]	Γ (MeV)[‡]	L	$E_{rel.}$(^{9}C+p) (MeV)
0.7×10^{3} *4*	2.3 MeV *16*	0	2.6 *4*

[†] Deduced assuming $E_{g.s.}$= E_{res}(^{9}C+p)=1.9 MeV *2* from 2017Ho10.

[‡] $\Gamma_p \approx \Gamma$.