$^{12}C(^{11}B,^{10}Be)$

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, C. G. Sheu and J. E. Purcell	NDS 198,1 (2024)	1-Aug-2024

1965Sa07, 1967Po13: $^{12}C(^{11}B,^{10}Be)$ E=116 MeV; populated ground state and unresolved states at E_x=3.5 MeV.

1974An36: E=114 MeV; measured σ. Analyzed the reaction mechanism, which was found to be mostly direct. Developed a dynamical nuclear reaction theory and compared with DWBA in this review article. Analysis includes $^{11}B(^{12}C,^{10}Be)$, $^{11}B(^{11}B,^{9}Li)$, $^{12}C(^{11}B,^{10}Be)$, $^{12}C(^{12}C,^{11}B)$, $^{12}C(^{14}N,^{13}C)$.

^{13}N Levels

E(level)	J^{π}†	L†	S†	Comments
0‡#@&*a*	$1/2^-$	2	1.2	
3.51×10^3‡#@	$3/2^-$	0+2		S: S(L=0)=0.334; S(L=2)=0.211.
3.56×10^3‡#@&*a*	$5/2^+$	1+3		S: S(L=1)=0.40; S(L=3)=0.669.
6.9×10^3#@&*a*	$3/2^+$	1+3		S: S(L=1)=0.302; S(L=1)=0.354.
7.17×10^3#@	$7/2^+$	3	0.488	
7.9×10^3‡#@	$3/2^+$	1+3		S: S(L=1)=0.288; S(L=3)=0.462.
9.0×10^3#@	$(9/2^+)$	3	0.507	
12.5×10^3‡				

† From DWBA analysis of spectroscopic factors in (1974An36).
‡ Reported in $^{12}C(^{11}B,^{10}Be)$.
# Reported in $^{11}B(^{12}C,^{10}Be)$.
@ Reported in $^{11}B(^{11}B,^{9}Li)$.
& Reported in $^{12}C(^{12}C,^{11}B)$.
a Reported in $^{12}C(^{14}N,^{13}C)$.