

Table 12.46 from (2017KE05): States of ^{12}N from $^{10}\text{B}(^3\text{He}, n)$ and $^{12}\text{C}(^3\text{He}, t)$

E_x^a (MeV \pm keV)	Γ_{cm}^a (keV)	L^a	E_x^b (MeV \pm keV)	Γ_{cm}^b (keV)	E_x^d (MeV \pm keV)	Γ_{cm}^d (keV)	J^π^e
0	20 ± 20	2	0		0		(1 ⁺)
0.960 ± 12	16 ± 20	2	$\equiv 0.964$	$< 20^h$	0.960		(2 ⁺)
1.189 ± 12	140 ± 25^c	1	1.190 ± 20	80 ± 30^h	1.193 ± 10	120 ± 20	2 ⁻
(1.72 ± 0.08)					1.80 ± 30	750 ± 250	1 ⁻
2.4 ± 100			2.415 ± 20	45 ± 15^h	2.445 ± 10	110 ± 20	0 ⁺
3.114 ± 15	200 ± 36^c	2	3.136 ± 30	240 ± 40	3.14 ± 10	220 ± 25	2 ⁺ , 3 ⁻
3.533 ± 15	150 ± 40^c	2	3.55 ± 50	150 ± 100	3.57 ± 10	260 ± 30	1 ⁺
4.250 ± 30^f	290 ± 70		4.15 ± 80^f	650 ± 100	4.14 ± 10^f	830 ± 20	2 ⁻ + 4 ⁻
5.320 ± 12	180 ± 20	(0)	5.23 ± 80^f	400 ± 80	5.37 ± 10	150 ± 30	3 ⁻
					(5.60 ± 11)	120 ± 50	
			6.10 ± 80^f	300 ± 100	6.40 ± 30	1200 ± 300	(1 ⁻)
			7.13 ± 100^f	500 ± 100	7.40 ± 50	1200 ± 500	(1 ⁻)
7.629 ± 20	200 ± 40		7.48 ± 100^f	180 ± 80	7.70 ± 11	200 ± 50	
8.446 ± 17	90 ± 30		(8.86 ± 100)	≈ 100			
9.035 ± 12	16 ± 20						
			9.42 ± 100	≈ 200	9.80 ± 20	450 ± 100	
			9.90 ± 100	100 ± 50	10.30 ± 20	450 ± 100	
			^g		11.00 ± 20	350 ± 100	

^a $^{10}\text{B}(^3\text{He}, n)^{12}\text{N}$: from values given in Table 12.26 of (1975AJ02) [mainly (1974FU11)]. See also Table 12.29 of (1968AJ02).

^b $^{12}\text{C}(^3\text{He}, t)^{12}\text{N}$: see Table 12.23 in (1980AJ01) for references. See also reaction 12 here.

^c Weighted means of values shown in Table 12.22 (1980AJ01).

^d $^{12}\text{C}(^3\text{He}, t)^{12}\text{N}$: (1983ST10: $E(^3\text{He}) = 75$ and 81 MeV), and M.N. Harakeh, private communication. See also (1984VA43, 1985VA1A).

^e DWBA calculations (1983ST10). Some of the J^π assignments also reflect knowledge of the analog region in ^{12}B .

^f May be due to unresolved states.

^g No other states observed with $E_x < 13$ MeV.

^h $J^\pi = 2^+$, (2^-) , and (0^+) for $^{12}\text{N}^*(0.96, 1.19, 2.42)$, respectively: see Table 12.23 in (1980AJ01).