

Table 14.18 from (1986AJ01): States of ^{14}N from $^{12}\text{C}(^3\text{He}, \text{p})^{14}\text{N}$ ^a

E_x (MeV \pm keV)	L	$J^\pi; T$	E_x (MeV \pm keV)	L	$J^\pi; T$
0	2		10.063 \pm 15 ^e		3 ⁺ , \geq 4
2.319 \pm 15	0		10.101 \pm 15		1 ⁺ , 2 ⁺
3.9502 \pm 1.5 ^b	0		10.23		1
4.9153 \pm 1.4 ^b	1		10.441 \pm 15	g	(2 ⁺ ; 1) ^h
\equiv 5.10587 \pm 0.18	1		10.53		1, 2
5.6888 \pm 1.4 ^b	1		10.812 \pm 15		5 ⁺ ; 0
5.8324 \pm 1.4 ^b	3		11.053 \pm 15		
6.2025 \pm 1.4 ^b	0		11.249 \pm 15		
6.4449 \pm 1.4 ^b	2		11.357 \pm 15		
7.0279 \pm 1.4 ^b	2		11.517 \pm 15		
7.9649 \pm 1.4 ^b	3		f		
8.072 \pm 15	1		12.29 \pm 15		
8.4864 \pm 1.5 ^{b,c}	3	4 ⁻ ; 0	12.425 \pm 15		
8.6174 \pm 4 ^b	0	(0 ⁺ ; 1) ^h	12.506 \pm 15		
8.9099 \pm 1.9 ^{b,d}		(3 ⁻ ; 1) ^h	12.608 \pm 15		
8.9598 \pm 1.4 ^b			12.69 \pm 15		
8.9773 \pm 4 ^b		(2 ⁺ ; 0) ^h	12.80 \pm 15		
9.1241 \pm 1.5 ^b			12.90 \pm 25 ^f		
9.1674 \pm 1.4 ^b	g	(2 ⁺ ; 1) ^h	13.15 \pm 40		
9.3854 \pm 1.6 ^{b,d}		2 ⁻ ; 0 ⁱ	14.91 \pm 60		
9.51		(2 ⁻ ; 1) ^h	15.8 \pm 200		
9.703 \pm 15		(1 ⁺ ; 0) ^h	17.4 \pm 200		

^a See Tables 14.14 in (1970AJ04), 14.18 in (1976AJ04) and 14.15 in (1981AJ01) for references.

^b A re-evaluation by E.K. Warburton (private communication) [based on an overall comparison with γ -ray values) of the E_x obtained by (1971DU03) leads to $E_x = 3949.1 \pm 1.5$, 4915.1 ± 1.4 , 5689.4 ± 1.4 , 5833.1 ± 1.4 , 6203.6 ± 1.4 , 6446.2 ± 1.4 , 7029.8 ± 1.4 , 7967.8 ± 1.4 , 8489.8 ± 1.5 , 8620.9 ± 4.0 , 8913.7 ± 1.9 , 8963.7 ± 1.4 , 8981.2 ± 4.0 , 9128.1 ± 1.5 , 9171.5 ± 1.4 and 9389.7 ± 1.6 keV.

^c $\Gamma_p/\Gamma = 0.73 \pm 0.10$.

^d The widths of $^{14}\text{N}^*(8.91, 9.39)$ are, respectively, 19.7 ± 1.9 and 15.6 ± 2.0 keV.

^e $\Gamma < 10$ keV (J.W. Noe, private communication).

^f See Table 14.15 in (1981AJ01).

^g $\theta_p^2(l=3) = (2.3 \pm 1.1) \times 10^{-3}$ and $< 1.6 \times 10^{-3}$ for $^{14}\text{N}^*(9.17, 10.43)$.

^h Known from other data; consistent with the results in this reaction.

ⁱ Or $J^\pi = 3^-$.